May 1975 Number 369-Part I

Solar-Geophysical Data prompt reports

Data for April 1975–March 1975

Explanation of Data Reports Issued as Number 366 (Supplement) February 1975

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Solar - Geophysical Data

NO. 369 MAY 1975

Part I (Prompt Reports)

DATA FOR
APRIL 1975
MARCH 1975

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

For obtaining bulletins on a data exchange basis, send request to: World Data Center A for Solar-Terrestrial Physics, NOAA, Boulder, Colorado 80302.

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SOLAR - GEOPHYSICAL DATA

No. 369

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

APRIL 1975

PRESTO MESSAGES (THE RAPID REPORT OF MAJOR EVENTS)

Boulder 08/0300Z Magstorm begins 07/17XXZ gradually with K = 5 at 2315Z and 0300Z.
Boulder 10/1625 10/1500Z Weak Magstorm in progress 10/1200Z.
Boulder 11/1400Z Weak Magstorm in progress 11/1300Z.

SUMMARY OF THE GEOALERT WWA MESSAGES

Message serial number	Date of issue	Date of observation	Wolf number	10 cm solar flux	A index	Active Regions: Location Lat-Long	Flares: No. of Total	Flares: M	Flares: X	Outstanding events	Forecasts: Date	Forecasts: Location Lat-Long	Forecasts: Desc*	Alert Situations
091	01	31	13	71	10	S02E14	0	0	0		01	S02E24	Q	SOLQUIET MAGQUIET
092	02	01	00	70	7	-	-	-	-		02	SPOTNIL		SOLQUIET MAGQUIET
093	03	02	00	71	5	-	-	-	-		03	SPOTNIL		SOLQUIET MAGQUIET
094	04	03	00	72	10	-	-	-	-		04	SPOTNIL		SOLQUIET MAGQUIET
095	05	04	00	73	6		-	-	-		05	SPOTNIL		SOLQUIET MAGALERT MINOR 06/08
096	06	05	11	74	7	S12W13	0	0	0		06	S12W13	Q	SOLQUIET MAGALERT MINOR 06/12
097	07	06	00	74	13	- -	-	-	-		07	SPOTNIL		SOLQUIET MAGALERT MINOR 07/12
098	08	07	12	73	17	N07E44	0	0	0	A MINOR GEOMAGNETIC STORM STARTED 07/17XX	08	N07E44	Q	SOLQUIET MAGALERT 08/12
099	09	08	30	73	31	N07E30 N01E11	0 0	0 0	0 0	MINOR GEOMAGNETIC STORM IN PROGRESS	09	N07E30 N01E11	Q Q	SOLQUIET MAGNIL
100	10	09	39	73	35	N08E15 N01W03 S08E12	0 1 0	0 0 0	0 0 0	MINOR MAGSTORM IN PROGRESS	10	N08E15 N01W03 S08E12	Q Q Q	SOLQUIET MAGALERT 10/11
101	11	10	00	72	32	-	-	0	0	MINOR MAGSTORM IN PROGRESS	11	SPOTNIL		SOLQUIET MAGALERT 11/12
102	12	11	00	72	26	-	-	-	-	MINOR MAGSTORM CONTINUES	12	SPOTNIL		SOLQUIET MAGALERT 12
103	13	12	00	70	17	-	-	-	-	MINOR GEOMAGNETIC DISTURBANCE CONTINUES	13	SPOTNIL		SOLQUIET MAGALERT 13/14
104	14	13	00	70	22	-	-	-	-	MINOR GEOMAGNETIC STORM IS DECREASING	14	SPOTNIL		SOLQUIET MAGALERT 14
105	15	14	00	69	18	-	-	-	-	MINOR GEOMAGNETIC DISTURBANCE CONTINUES	15	SPOTNIL		SOLQUIET MAGNIL
106	16	15	00	69	5	-	-	-	-		16	SPOTNIL		SOLQUIET MAGQUIET
107	17	16	00	69	5	-	-	-	-		17	SPOTNIL		SOLQUIET MAGQUIET
108	18	17	00	69	5	-	-	-	-		18	SPOTNIL		SOLQUIET MAGQUIET
109	19	18	00	68	7	-	-	-	-		19	SPOTNIL		SOLQUIET MAGQUIET
110	20	19	00	67	6	-	-	-	-		20	SPOTNIL		SOLQUIET MAGQUIET
111	21	20	00	67	12	-	-	-	-		21	SPOTNIL		SOLQUIET MAGALERT MINOR 21/26
112	22	21	00	68	20	-	-	-	-	MINOR GEOMAGNETIC DISTURBANCE IS IN PROGRESS	22	SPOTNIL		SOLQUIET MAGALERT 22/26
113	23	22	00	67	14	S12E05	0	0	0	MINOR GEOMAGNETIC DISTURBANCE IS IN PROGRESS	23	S12E05	Q	SOLQUIET MAGALERT 23/26
114	24	23	25	68	24	S12W09 N09E62 N08W08	0 0 0	0 0 0	0 0 0	MINOR GEOMAGNETIC DISTURBANCE IS IN PROGRESS	24	S12W09 N09E62 N08W08	Q Q Q	SOLQUIET MAGALERT 24/26
115	25	24	00	68	14	S12W22 N09E50 N08W21	0 0 0	0 0 0	0 0 0	MINOR GEOMAGNETIC DISTURBANCE IS IN PROGRESS	25	S12W22 N09E50 N08W21	Q Q Q	SOLQUIET MAGALERT 25/26
116	26	25	19	71	9	S05E04	0	0	0	MINOR MAGNETIC DISTURBANCE IS DECREASING	26	S05E04	Q	SOLQUIET MAGALERT 26
117	27	26	14	71	7	N03E77	0	0	0		27	N03E77	Q	SOLQUIET MAGNIL
118	28	27	29	73	6	N02E59 N09W46	0 0	0 0	0 0		28	N02E59 N09W46	Q Q	SOLQUIET MAGQUIET
119	29	28	24	74	3	N01E46 N08W60	0 0	0 0	0 0		29	N01E46 N08W60	Q Q	SOLQUIET MAGQUIET
120	30	29	23	72	3	N01E33 N08W72	2 0	0 0	0 0		30	N01E33 N08W72	Q Q	SOLQUIET MAGQUIET
121	01	30	22	72	5	N00E14 N30W08 S10E56	0 0 1	0 0 0	0 0 0		01	N00E14 N30W08 S10E56	Q Q Q	SOLQUIET MAGQUIET

* Q=Quiet E=Eruptive A=Active P=Proton C=Caution D=Doubtful O.G.=Other Groups

RELATIVE SUNSPOT NUMBERS

ZURICH, R_Z

	1974 FINAL								1975 PROVISIONAL			
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	47	33	79	37	9	61	18	0	30	0	0	0
2	70	41	87	23	5	53	27	0	30	22	7	0
3	85	52	90	12	15	46	39	9	28	28	14	0
4	98	67	93	17	37	60	45	16	19	27	11	0
5	100	62	95	18	40	85	36	17	18	20	14	21
6	102	72	93	26	44	83	25	8	23	26	14	0
7	98	65	78	32	39	84	22	7	32	34	7	15
8	96	59	59	34	32	97	14	8	29	29	18	17
9	88	64	40	43	63	107	7	0	37	22	19	9
10	69	59	26	48	74	114	24	9	31	18	20	13
11	62	48	22	54	80	110	27	21	30	13	20	0
12	49	38	22	67	80	92	24	31	31	18	15	0
13	36	44	28	59	74	76	16	34	32	9	15	0
14	32	41	38	56	67	63	8	33	11	8	17	0
15	23	32	49	59	64	48	16	35	20	8	18	0
16	16	25	54	57	58	41	20	40	17	8	30	0
17	8	25	52	52	71	28	20	36	16	0	30	0
18	0	27	53	44	65	16	18	34	20	0	24	0
19	0	28	47	43	51	9	34	43	20	0	20	0
20	0	20	50	32	31	11	40	40	18	7	16	0
21	0	15	55	29	13	12	40	40	16	8	9	0
22	7	11	58	34	0	9	44	37	16	0	0	0
23	9	11	61	34	7	7	44	28	15	0	0	7
24	7	15	57	28	11	7	37	26	7	12	0	8
25	0	15	59	25	11	8	29	9	7	9	0	7
26	20	8	60	8	13	16	25	8	7	0	13	7
27	18	9	54	8	19	30	23	8	0	0	7	26
28	28	19	51	9	23	27	13	20	7	0	0	19
29	18	30	42	14	34	22	7	16	7		0	16
30	7	47	41	8	58	22	7	19	7		7	20
31	30		38	15		16		13	0		8	
MEAN	39.5	38.0	55.8	33.6	40.2	47.1	25.0	20.5	18.7	11.6	12.0	6.2

1974 yearly mean = 34.5

DAILY SOLAR FLUX AT 2800 MHz
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S_a

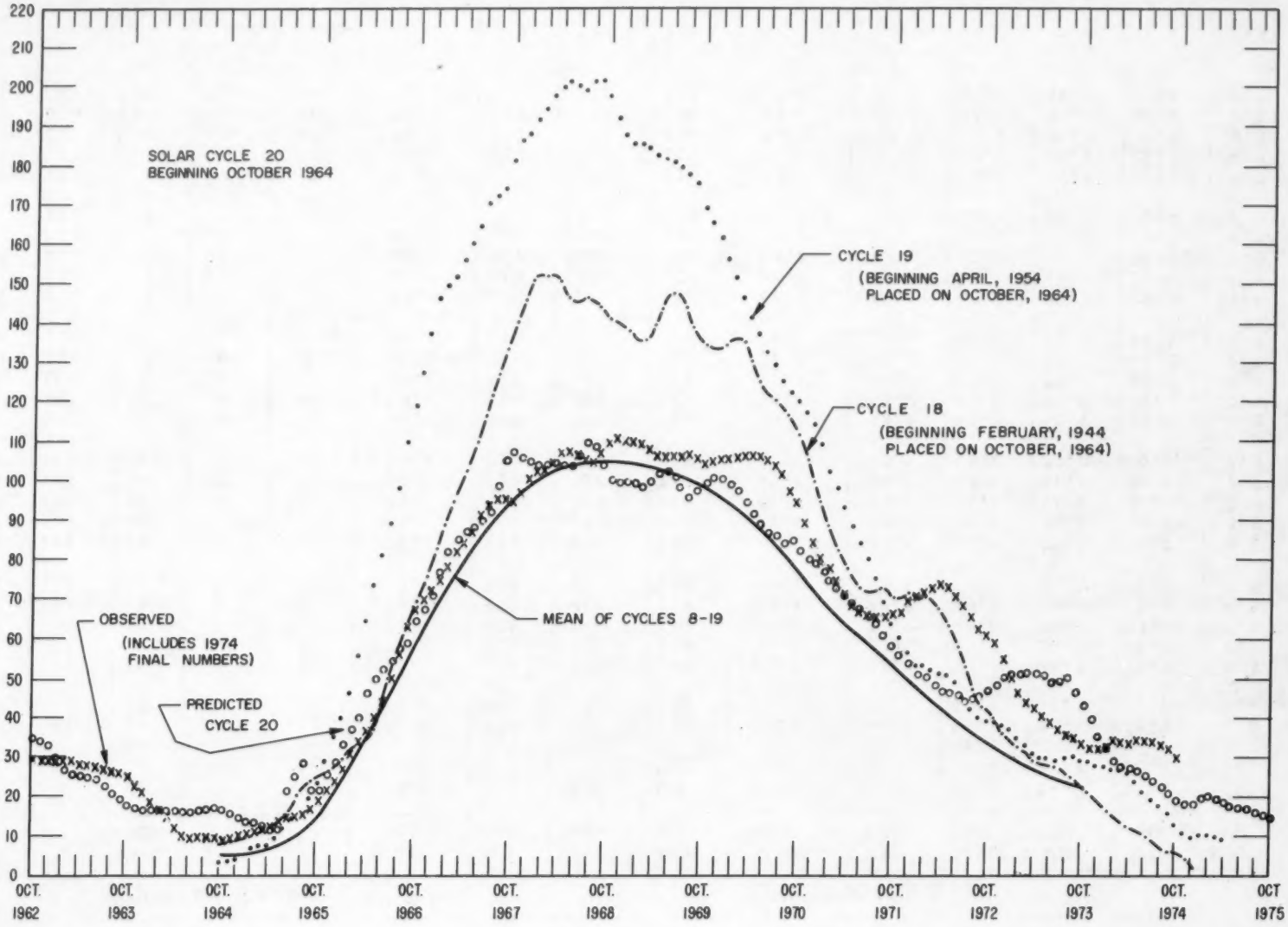
	1974								1975			
DAY	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR
1	98.5	97.9	105.4*	85.1	77.8	93.1	90.2	79.7	78.1	70.8	78.7	70.2
2	113.1*	103.1	112.7*	85.2	79.4	94.6	92.0	78.7	75.8	72.3	72.4	71.2
3	115.5	99.9	118.5*	83.0	79.2	93.4	96.2	75.7	77.1	74.3	73.4	72.2
4	118.0	98.2	127.8*	85.8	81.0	100.5	99.5	74.7	74.4	75.4	72.8	73.0
5	119.7	95.5	125.6*	85.5	81.5	113.3*	97.6*	73.2	73.7	76.5	71.3	73.7
6	123.0	95.0*	121.5	88.0	82.2	115.0	92.3	71.9	73.8	81.1	72.4	73.7
7	119.3	92.8	110.5*	85.8	85.4	114.5*	85.6	71.1	75.7	79.4	71.9	74.3
8	115.8	95.0*	104.7*	89.4	83.4	125.2	82.0	69.6	77.7	78.8	72.5	73.6
9	110.0	95.1	95.5	87.5	86.0	128.9	78.9	69.6	79.9	77.1	73.8	73.4
10	105.1	97.0	88.2	89.3	102.0	129.3*	78.4	70.4	80.5	76.7	73.3	72.4
11	104.3	95.3*	83.1	94.4	104.6	137.5*	77.3	75.2	81.2	74.8	73.0	72.3
12	97.1	91.7	83.3	99.4	105.5	144.1	79.1	77.9	82.4	74.9	74.2	70.8
13	93.5	89.8	87.3	95.2	106.8*	126.6	76.1	78.8	80.4	73.7	75.6*	70.7
14	88.2	88.1	83.3	93.2	104.1	113.2*	77.7	78.2	77.7	72.0	75.0	69.7
15	84.9	84.7	85.5	92.1	103.6	103.7*	80.0	83.2	77.4	69.7	73.4	69.7
16	80.3	86.2	91.3	95.6	102.3*	94.9	82.5	88.3	76.5	71.4	76.0	69.2
17	75.8	87.2	91.0	93.8	100.3	83.8	84.6	98.3	74.7	69.3	75.3	69.6
18	75.2	84.4	86.5	95.1*	100.0	81.0	88.5	90.3	75.8	68.3	74.2	68.3
19	73.0	82.8	87.1	85.8	91.7	75.2	96.0	91.9	74.1	70.0	72.9	67.5
20	72.5	83.8	96.7	82.6	85.9*	75.5	95.6	87.3	73.8	69.5	71.9	68.0
21	71.9	81.4	90.1	81.2*	82.7	73.9	96.2	85.0	74.5	68.9	71.2	68.2
22	72.2	82.3	85.3*	80.6	81.0	72.6	98.7	84.4*	73.6	68.3	69.3	67.8
23	71.5	80.2	88.5	81.0	79.6	74.0	98.1	83.0	72.7	68.3	67.6	68.7
24	71.6	79.1	92.1*	77.4	77.8	74.7	95.9	80.1	71.8	68.6	67.4	69.3
25	72.4	78.8	89.5	75.7	72.8	76.9	94.5	78.9	70.3	69.4	67.5	71.6
26	79.6	79.6	93.1	73.8	75.4	80.7	92.2	75.8	70.5	68.9	68.5	72.1
27	85.1	82.4	87.9	72.7	77.3	80.0	90.8	74.3	70.1	69.4	67.3	74.4
28	87.4	83.0	84.5	71.8	80.7	81.6	86.6	73.7	70.7	68.6	67.8	74.8
29	89.4	89.4*	85.2	72.4	80.7	81.6	83.8	74.1	70.4		69.0	73.2
30	91.3	93.1*	85.9	74.2	81.5	82.7	82.0	74.5	70.5		69.8	73.4
31	95.1		87.4	75.6		86.7*		75.1	70.1		70.5	
MEAN	92.6	89.0	95.5	85.1	88.7	97.1	88.3	78.6	75.0	72.4	71.7	71.2

* adjusted for burst

DAILY SOLAR INDICES

APRIL 1975

APR 1975	YEAR DAY	BARTELS 27-DAY CYCLE NUMBER	SUNSPOT NUMBERS		OBSERVED FLUX	SOLAR FLUX ADJUSTED TO 1 A.U.								
			R_Z	$R_{A'}$	OTTAWA 2800	AFCRL 15400	AFCRL 8800	AFCRL 4995	OTTAWA 2800	AFCRL 2695	AFCRL 1415	AFCRL 606	AFCRL 410	AFCRL 245
1	91	11	0	0	70.3	519	277	118	70.2	71.5	45.7	34.4	21.4	7.9
2	92	12	0	0	71.3	509	275	117	71.2	70.5	48.4	32.3	22.2	8.3
3	93	13	0	0	72.2	515			72.2					
4	94	14	0	0	72.9	520	261	119	73.0	69.9	51.3	35.6	18.9	8.0
5	95	15	21	4	73.6	527	283	123	73.7	73.8	50.5	37.3	21.5	8.4
6	96	16	0	0	73.6	523	272	119	73.7	73.2	48.3	36.8	22.5	8.0
7	97	17	15	7	74.2	514	272	118	74.3	73.6	49.5	34.7	22.0	7.8
8	98	18	17	14	73.4	521	276	120	73.6	72.9	49.8	35.6	23.4	7.8
9	99	19	9	12	73.2	511	279	119	73.4	72.8	49.5	35.2	22.6	7.5
10	100	20	13	7	72.1	518	279	120	72.4	71.0	46.6	34.6	22.9	7.8
11	101	21	0	2	71.9	521	274	118	72.3	70.4	44.3	33.4	22.7	8.1
12	102	22	0	0	70.4	524	272	116	70.8	68.5	44.2	36.4	21.8	8.0
13	103	23	0	0	70.3	514	273	116	70.7	69.1	44.1	33.0	21.7	7.9
14	104	24	0	0	69.3	512	272	117	69.7	68.0	42.6	31.1	21.1	7.7
15	105	25	0	1	69.2	515	274	117	69.7	68.1	45.0	29.0	20.8	7.9
16	106	26	0	0	68.7	518	275	116	69.2	68.0	44.2	32.1	20.5	7.3
17	107	27	0	0	69.0	514	270	115	69.6	68.2	42.5	31.6	21.3	7.4
18	108	1	0	0	67.7	520	269	114	68.3	66.7	42.8	33.5	21.0	7.3
19	109	2	0	0	66.9	509	262	113	67.5	66.1	43.7	31.0	20.2	7.5
20	110	3	0	0	67.3	513			68.0		44.2	31.8	19.8	7.3
21	111	4	0	0	67.5	513	271	113	68.2	66.1	43.1	32.7	21.5	7.6
22	112	5	0	0	67.1	513	270	112	67.8	66.4	42.5	31.6	22.0	7.5
23	113	6	7	3	68.0	511	266	114	68.7	67.0	42.8	31.3	21.8	7.9
24	114	7	8	3	68.5	515	268	117	69.3	67.5	44.5	32.2	20.7	7.8
25	115	8	7	1	70.8		273	118	71.5	69.4	46.1	34.4	21.4	7.6
26	116	9	7	7	71.2		271	118	72.1	70.4	46.7	35.2	22.0	7.7
27	117	10	26	22	73.4	512	271	119	74.4	72.1	49.1	36.1	21.6	7.9
28	118	11	19	20	73.8	511	270	119	74.8	73.2	49.1	35.3	22.3	8.2
29	119	12	15	11	72.1	507	276	121	73.2	71.9	46.2	34.5	23.0	8.0
30	120	13	2	6	72.3		273	117	73.4	71.6	45.6	34.8	22.4	7.9
MEAN			5.2	4.0	70.7	515	272	117	71.2	69.9	46.0	33.7	21.6	7.8



PREDICTED AND OBSERVED SUNSPOT NUMBERS

SMOOTHED OBSERVED AND PREDICTED SUNSPOT NUMBERS
CYCLE 20

MONTH	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1964										9.6	10.2	11.3
1965	11.7	12.0	12.5	13.6	14.6	15.0	15.5	16.4	17.4	19.7	22.3	24.5
1966	27.7	31.3	34.5	37.4	40.7	44.6	50.3	56.6	63.1	67.6	70.2	72.7
1967	75.0	78.0	82.2	84.6	87.4	91.3	94.1	95.3	95.3	95.0	97.1	100.6
1968	102.6	102.9	104.7	107.2	107.6	106.6	105.2	104.8	107.0	109.9	110.6	110.1
1969	110.0	109.6	108.0	106.4	106.2	106.1	105.8	106.4	105.4	104.1	104.6	104.9
1970	105.6	106.0	106.2	106.1	105.8	105.3	103.8	101.0	97.2	93.9	89.4	84.1
1971	80.4	77.0	74.4	70.9	68.1	66.7	65.4	64.6	65.0	66.2	66.0	69.4
1972	70.8	71.2	72.4	73.4	72.9	70.5	68.2	65.5	62.2	60.6	58.7	55.1
1973	50.9	46.5	44.2	42.7	40.7	39.1	37.5	36.1	34.4	32.6	31.0	31.5
1974	32.7	34.4	34.0	33.9	34.6	34.5	34.0	33.1	32.1	30.3	28.0 (2)	27.6 (3)
1975	26.1 (4)	24.4 (4)	23.1 (5)	21.6 (6)	19.9 (7)	18.7 (9)	17.7 (11)	16.6 (-)	15.5 (-)	14.8 (-)	13.9 (-)	13.0 (-)

For each month, the upper figure is the observed or predicted Zürich smoothed sunspot number. The lower figure in parenthesis is the corresponding absolute value of the 90% prediction interval, an indication of the uncertainty above and below the predicted number. Observed numbers are those with no prediction intervals. The observed smoothed sunspot numbers are based on final Zürich numbers through 1974.

The predicted sunspot numbers are derived from a regression analysis based on cycles 8 through 19. Tests indicate that earlier cycles are from a different statistical population. From July 1968 - February 1970 a regression analysis based on cycles 1 through 19 was used because it had not then been proven that two populations exist.

SOLAR FLARES

Date, time (UT) and coordinates of Subflares

APRIL 1975

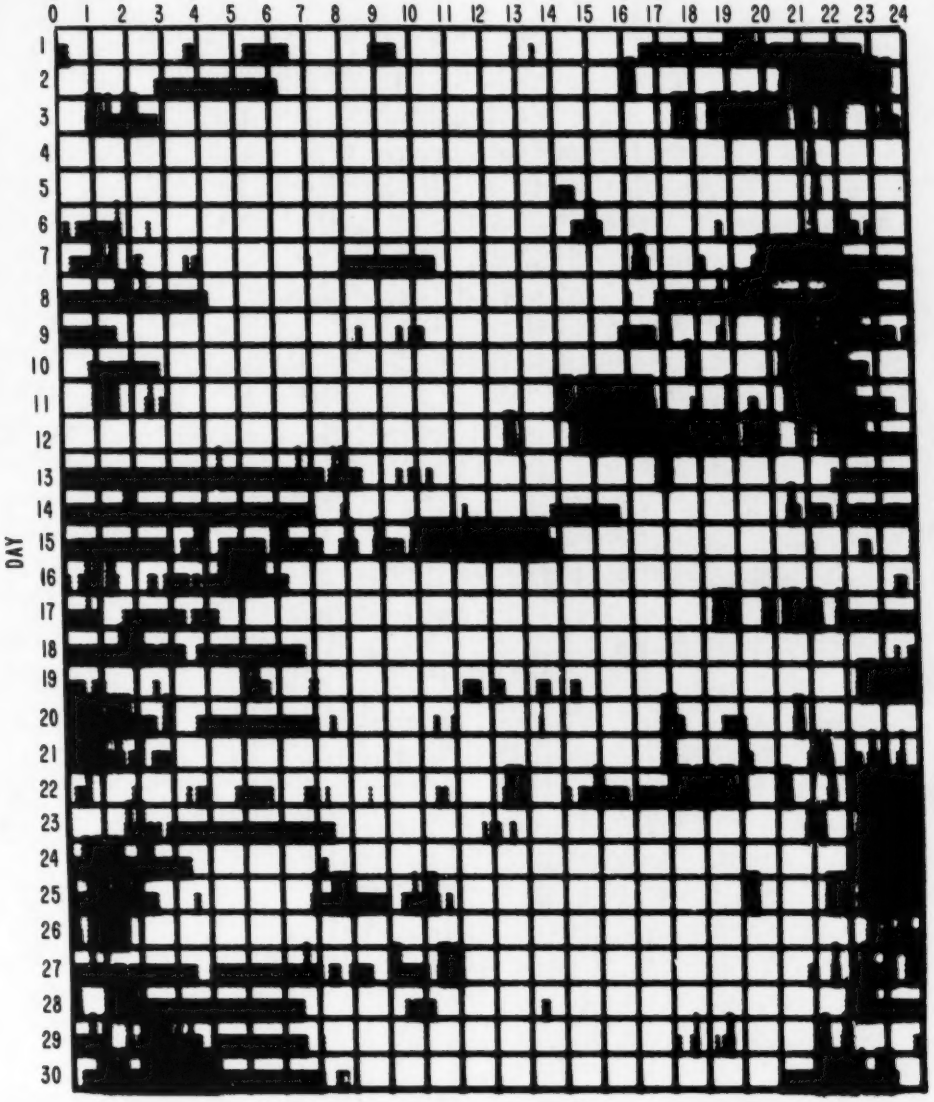
06 1050	N08 E69	09 2358E	N 2 W 3	09 2358E	N 2 W 3	10 0004	N03 W03	10 0004	N03 W03	23 0750	N10 E72
23 1250	N08 W03	24 1245	N10 E42	24 1333	S05 E12	26 1159	N01 E87	26 1400	N01 E86	27 1107	N 4 E69
29 1653	N10 W70	29 2051E	S 1 E35	29 2052E	N 2 E33	29 2258E	N01 E33	29 2301E	S 1 E34	29 2301E	N 2 E33
30 0917	N10 W78	30 1956E	S10 E60								

No Flares of Importance 1 or greater have been reported for April 1975.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

APRIL 1975



Observatories included in total patrol:

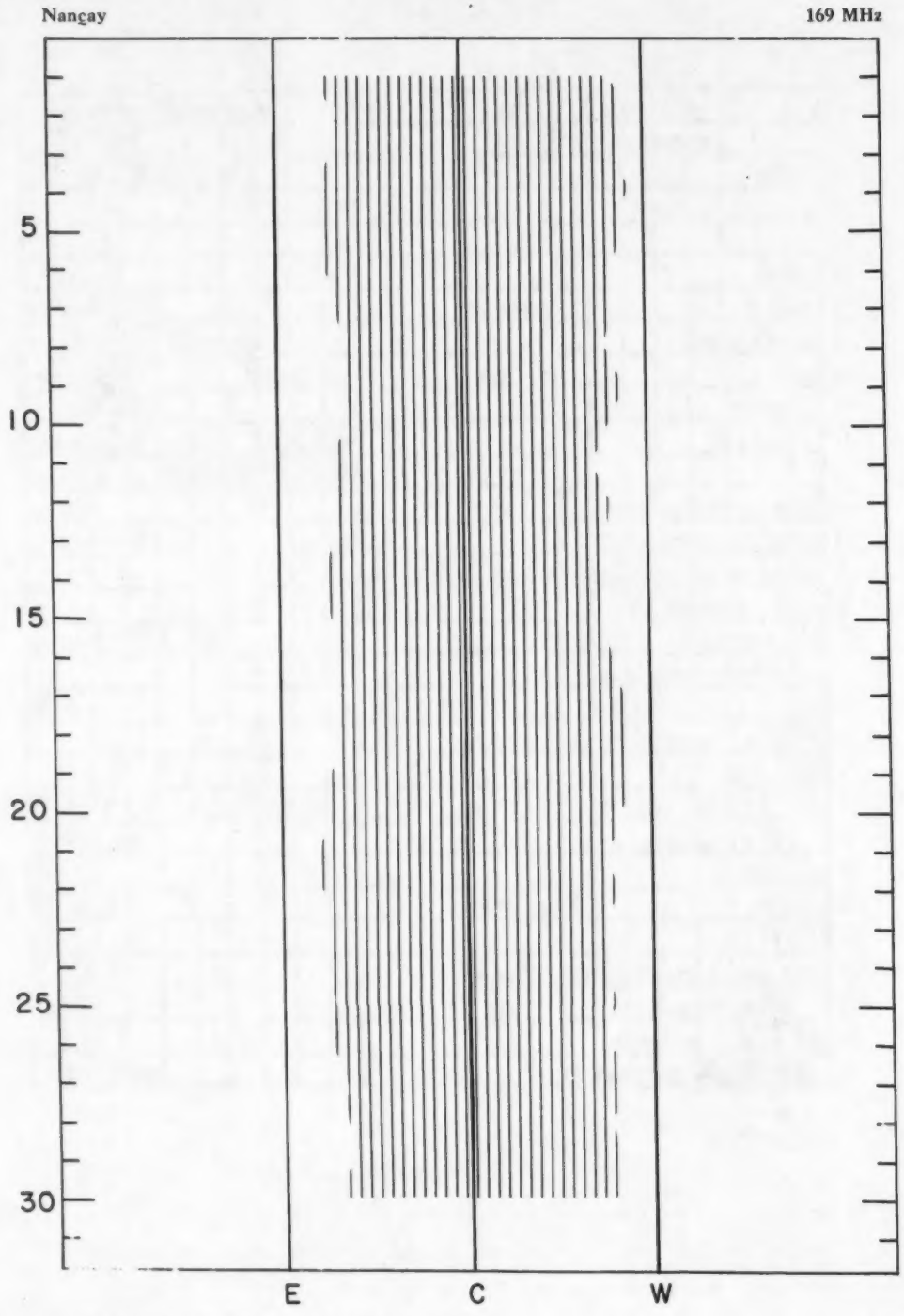
Arcetri	Catania	Hurbanovo	Mitaka	Tehran
Athenes	Haute Provence	Kodaikanal	Palehua	Upice'
Bucharest	Herstmonceux	Manila	Ramey	Wendelstein

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

12
Apr 75

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

APRIL 1975



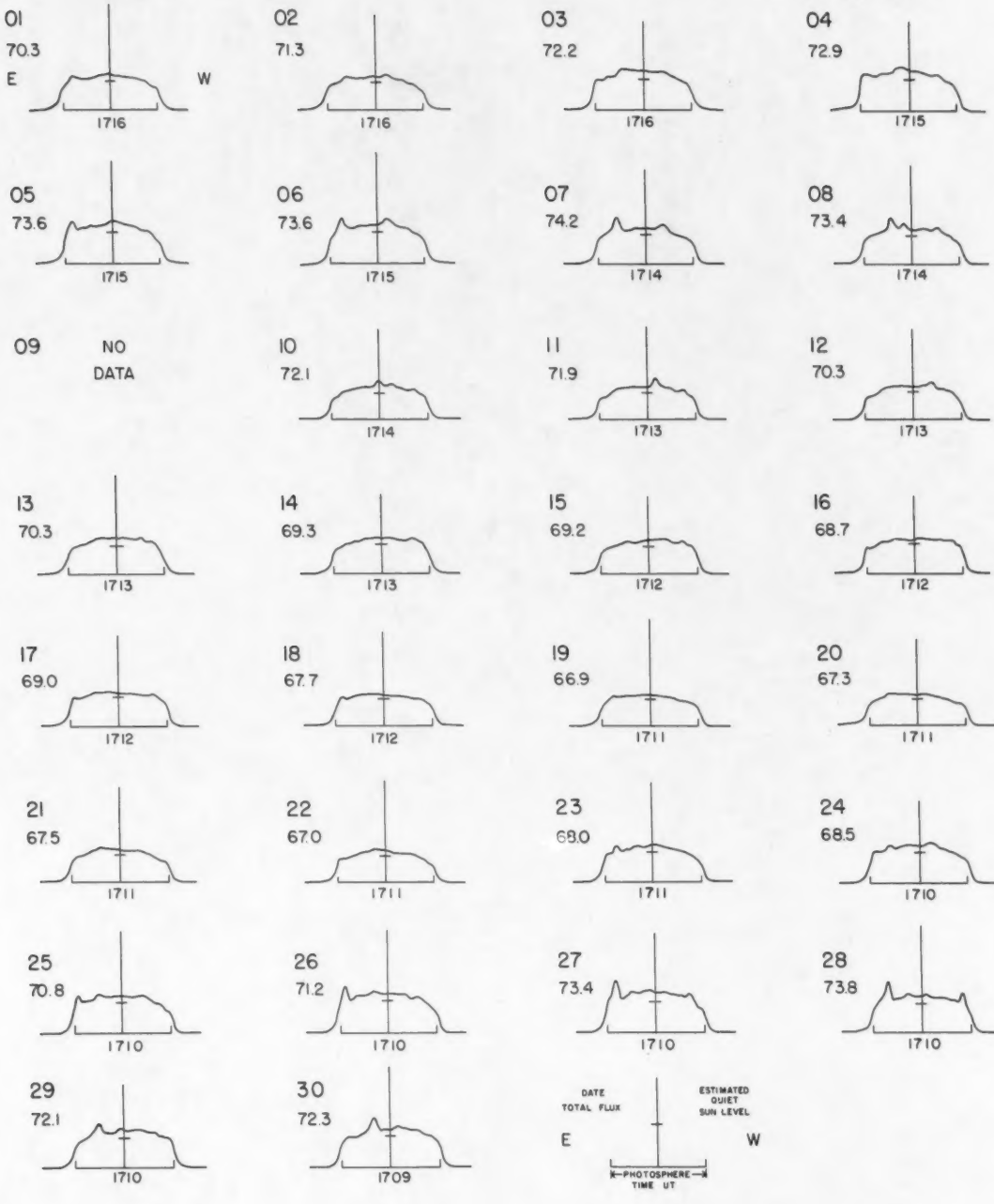
The Nancay Chart for March 1975 is on page 101 of this issue.

EAST - WEST SOLAR SCANS

April 1975

ALGONQUIN RADIO OBSERVATORY
CANADA

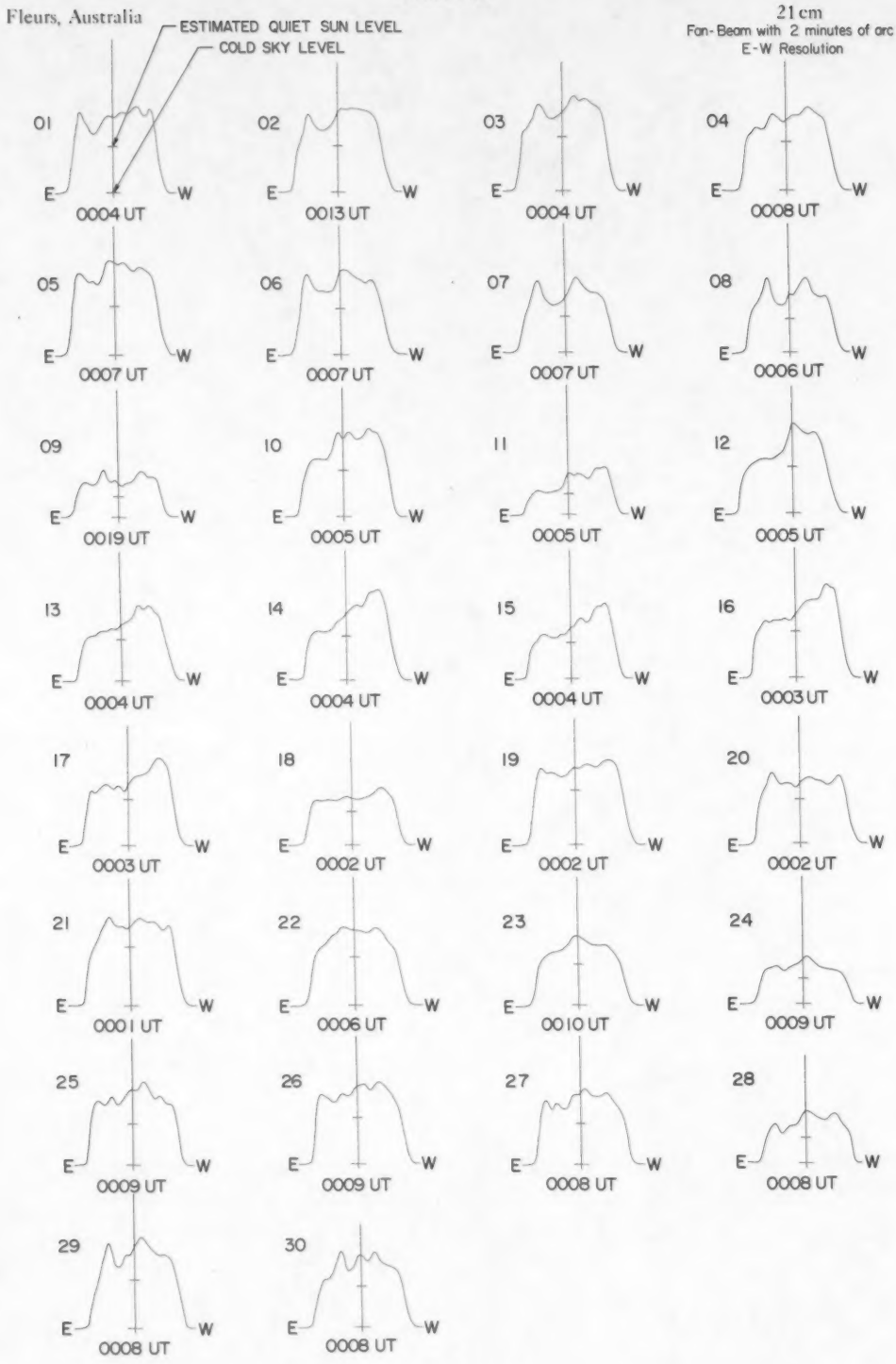
10.7 cm
Fan Beam with 1.5 minutes of arc
E - W Resolution



14
Apr 75

EAST-WEST SOLAR SCANS

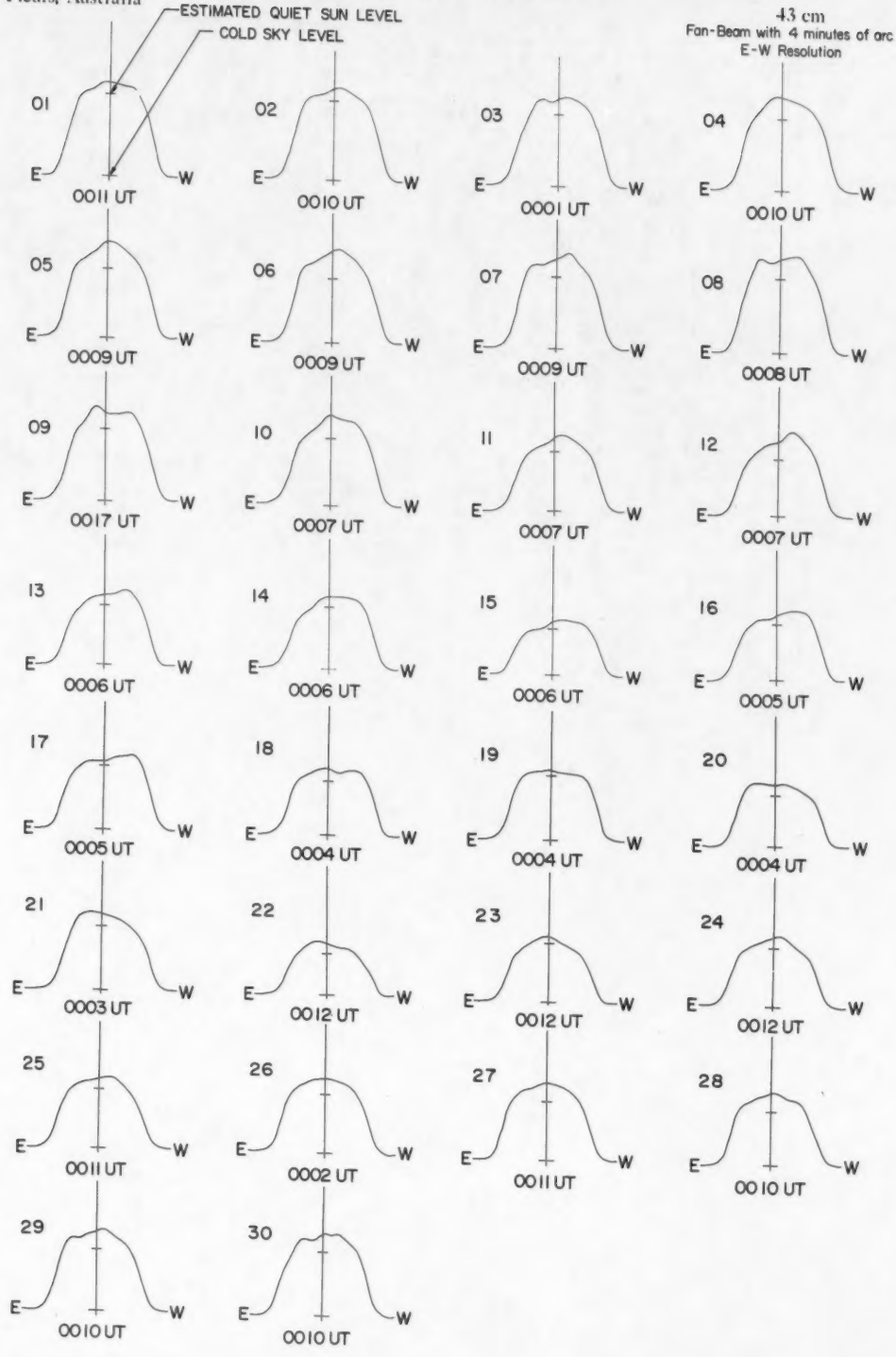
APRIL 1975



EAST-WEST SOLAR SCANS

APRIL 1975

Fleurs, Australia



SOLAR RADIO EMISSION
SELECTED FIXED FREQUENCY EVENTS

APRIL 1975

	FREQUENCY	STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1}		INT	REMARKS
				UT	UT	MINUTES	PEAK	MEAN		
14	2695	SGMR	20 GRF	1943	1953	25.3	3.9	2		
18	2695	BOUL	3 S	1939.5	1940.5	2.5	4	1		
	2695	BOUL	3 S	2031.5	2033	2	3	1		
24	2695	BOUL	45 C	1614	1615	7	8	3		
	2695	BOUL	45 C	1656.5	1658	5.5	230	16		
25	2695	BOUL	1 S	1737.5	1738	1	3	1		
28	2695	BOUL	45 C	1759	1801.5	4.5	23	9		

Observatories:

BOUL = Boulder OTTA = Ottawa ARO PENT = Penticton SGMR = Sagamore Hill

Explanation of Type Code:

1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise Storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

SOLAR WIND
Interplanetary Scintillations
APRIL 1975

UCSD 74 MHZ SCINTILLATIONS

DAY	3C48 VEL	ERR	3C144 VEL	ERR	3C147 VEL	ERR	3C161 VEL	ERR	3C237 VEL	ERR	3C273 VEL	ERR	3C298 VEL	ERR	3C459 VEL	ERR
1					282	38	398	27								
2	411	48	378	87					448	-183			273	38		
3			462	137											419	12
4	474	7	491	49	338	70	386	30								
5	347	55			383	7	543	20							246	10
6	490	131					414	102							302	14
7	494	58	568	32			403	42					764	129	442	71
8	475	49	531	64			499	22	459	152	672	50			360	46
9	435	11	591	52			421	37							423	44
10	511	13	366	18											360	35
11	534	21	514	38									546	28	291	16
12	522	18	715	34			527	116							360	88
13	517	57	619	124			559	132							344	39
14	604	82	380	71			586	98							282	33
15	526	65	239	14	294	-1	495	87							238	31
16	481	50	281	5	323	11	411	70							311	23
17	527	35	273	60	374	48									299	20
18	548	21	300	78	292	104	265	84	298	104	366	16	359	50	293	16
19	575	26	402	99			244	47							270	39
20	485	25	440	12			407	56			506	114	513	117	408	9
21	606	24	574	26	516	56	476	57	477	8	501	35			548	37
22	634	29	548	63	538	82	463	5	361	21			466	128	824	62
22			394	41												
23	636	-1	315	3			552	41			631	33			581	50
24	683	23	356	39	381	111	467	41			544	48	626	57	626	17
25	663	10	345	3			446	38					517	87	576	33
26	652	11	381	6			457	72							548	57
27	657	45	371	38	335	83	518	49							519	119
28	619	36	319	7			509	38							431	38
29	591	18					528	73							353	23
30	567	33	400	18			492	29							551	65

APRIL	5				15				25			
	UT	LAT	DIST	DLON	UT	LAT	DIST	DLON	UT	LAT	DIST	DLON
3C48	21.	35.	0.47	-48.	20.	51.	0.39	-42.	20.	63.	0.36	-9.
3C144	1.	-7.	0.93	-22.	0.	-7.	0.85	-32.	24.	-8.	0.75	-42.
3C147	0.	1.	0.96	-16.	23.	5.	0.90	-23.	23.	10.	0.83	-31.
3C161	2.	-15.	1.01	-15.	2.	-15.	0.96	-15.	1.	-18.	0.91	-20.
3C237	6.	-7.	1.23	-10.	5.	-7.	1.20	-12.	4.	-6.	1.16	-13.
3C273	8.	-5.	1.30	-2.	7.	-4.	1.29	-5.	6.	-4.	1.27	-7.
3C298	10.	-1.	1.28	3.	9.	-1.	1.29	1.	8.	0.	1.29	-2.
3C459	18.	17.	0.43	61.	18.	11.	0.57	52.	17.	8.	0.70	44.

3C147 OBSERVED AT 0^h U.T. BEFORE APRIL 14, AT 23^h U.T. AFTER APRIL 14
3C144 OBSERVED AT 0^h U.T. BEFORE APRIL 22, AT 23^h U.T. AFTER APRIL 22

PIONEER VI

APRIL 1975

Date Apr. 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND AMES[1] U_{H^+} (km/sec)†	AMES[1] TAU (days)	MIT[2] U_{H^+} (km/sec)	MIT[2] N_{H^+} (H^+/cc)	COSMIC RAY PROTONS[3] (particles/sec) 6-13 (Mev*)	13-175 (Mev**)	>175 (Mev)
15	1515-1614	1600	136.8	647	10.3	670	4.4	0.38	0.12	---
22	1426-1922	1500	136.9	448	10.4	400	12.	.42	.03	1.52
		1600		448		400	12.	.42	.14	1.5
		1700		448		406	9.5	.4	.12	1.02
		1800		448		419	9.6	.4	.11	1.46
		1900		448		415	11.	.37	.133	1.5

PIONEER VII

APRIL 1975

Date Apr. 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND AMES[1] U_{H^+} (km/sec)†	AMES[1] TAU (days)	MIT[2] U_{H^+} (km/sec)	MIT[2] N_{H^+} (H^+/cc)	COSMIC RAY PROTONS[3] (particles/sec) 6-13 (Mev*)	13-175 (Mev**)	>175 (Mev)
30	1059-1556	1100	-059.9	571	-5.1					
		1200		571						
		1300		571						
		1400		571						
		1500		571						
		1600		571						

[1] Wolfe - NASA/ARC
[2] Simpson - University of Chicago

* Includes He 0.6-13 Mev/nucleons and electrons ∿0.5 Mev - see J. Retzler and J. A. Simpson, J. Geophys. Res., 74, 9, 2149-2160, 1969 for discussion of the electron response of Pioneer VII.

** Includes He >13 Mev/nucleons.
Q Used to indicate that a rate is at its quiescent level.

Note: The notes published with the March 1972 data continue to apply to the current data.

ESP = Earth-Sun Probe Angle.

† Peak velocity.

Note: Data sampled hourly unless otherwise noted.

PIONEER VIII

APRIL 1975

Date Apr. 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND[1]				IP E-FIELD[2]	IMP[3]		COSMIC RAY PROTONS[4] (particles/sec)	
				U_{H^+} * (km/sec)	N_{H^+} (H^+/cc)	T_{H^+} ($\times 10^6$°K)	TAU (days)	400 Hz (mv)	|B| (γ)	φ (°)	>13.9 Mev	>64 Mev
29	2258-2344	2300	156.98						3.	180.	7.4	0.8
30	2157-0250	2200	156.9						3.7	354.	7.43	.74
		2300		350.			11.8	0.43	4.5	092.	7.46	.74
		2400		350.				.38	4.5	089.	7.46	.74
		0100		350.				.44	3.7	024.	7.37	.5
		0200		350.				.31	4.3	164.	7.3	.69
		0300		350.				.35	4.3	140.	7.57	.68

[1] Wolfe - NASA/ARC.
[2] Scarf - TRW, Inc.
[3] Ness - NASA/Goddard & Mariani - Univ. of Roma
[4] Webber - Univ. of N.H.

ESP = Earth-Sun Probe Angle.

PIONEER IX

APRIL 1975

Date Apr. 1975	DSN Coverage (UT)	Data Time (UT)	ESP (°)	SOLAR WIND[1]				IP E-FIELD[2]	IMP[3]		COSMIC RAY PROTONS[4] (particles/sec)	
				U_{H^+} * (km/sec)	N_{H^+} (H^+/cc)	T_{H^+} ($\times 10^6$°K)	TAU (days)	400 Hz (mv)	|B| (γ)	φ (°)	>13.9 Mev	>40 Mev
15	1808-2230	1800	-171.2	404.			-9.8	0.13	8.8	080.	6.79	0.97
		1900		404.				.19	8.5	082.	6.71	1.11
		2000		404.				.2	8.	086.	6.9	1.16
		2100		404.				.16	8.2	099.	6.45	1.06
		2200		376.				.12	8.2	057.	6.77	1.21

[1] Wolfe - NASA/ARC
[2] Scarf - TRW, Inc.
[3] Sonett and Colburn - NASA/ARC
[4] Webber - Univ. of N.H.

ESP = Earth-Sun Probe Angle.

* Peak velocity

Note: Data sampled hourly unless otherwise noted.

SOLAR X-RAYS BY SATELLITE
SMS-1 GOES

APRIL 1975

.5 - 4Å Hourly Averages (10^{-6} watts/m^2 /sec)

MO DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
4/ 1	B	B	B	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B	0.01	B	B	B	B	B	B
4/ 2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 5	B	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 7	B	B	B	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
4/ 8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/10	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/11	B	B	B	B	B	B	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
4/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B
4/16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	M	B	B	B	B	B	B
4/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/18	B	B	B	B	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
4/19	B	B	M	B	B	B	B	B	M	B	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B
4/20	B	B	B	B	0.12	0.09	B	B	B	M	B	M	B	B	B	B	B	B	B	B	B	M	M	0.01	
4/21	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B
4/23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/26	B	B	B	B	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B	B
4/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/30	B	0.01	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Note: "B" indicates the flux was below the cut-off levels.
"M" denotes periods of missing data.

SOLAR X-RAYS BY SATELLITE
SMS-1 GOES
APRIL 1975

1 - 8Å Hourly Averages (10^{-5} watts/m^2 /sec)

MO DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
4/ 1	B	B	B	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 5	B	B	B	B	B	M	0.04	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 7	B	B	B	M	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
4/ 8	B	B	B	0.01	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/ 9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/10	B	B	B	B	M	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.02	B	B	B	B
4/11	B	B	B	B	B	B	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B
4/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B
4/16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	M	B	B	B	B	B	B
4/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/18	B	B	B	B	M	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	0.12	B	B
4/19	B	B	M	B	B	B	B	B	M	B	B	M	M	B	B	B	B	B	B	B	B	B	B	B	B
4/20	B	B	B	B	B	B	B	B	B	M	B	M	B	B	B	B	B	B	B	B	B	B	M	M	B
4/21	M	B	B	B	B	B	B	B	B	B	B	B	B	0.03	B	B	B	B	B	B	B	B	B	B	B
4/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	M	B	B	B	B	B	B	B	B
4/23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	0.01	B	B	B	B
4/24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/26	B	B	B	0.01	M	M	M	M	M	M	M	M	M	B	B	B	B	B	B	B	B	B	B	B	B
4/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
4/30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

Note: "B" indicates the flux was below the cut-off levels.
"M" denotes periods of missing data.

INFERRED IP MAGNETIC FIELD

BARTELS ROTATION	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1896	1972 MAR 10	A	A	A	A	A	A	A	A	A	A	T	A	T	A	T	A	T	A	T	T	T	T	T	T	T	T	A
1897	APR 6	A	A	T	T	T	T	A	A	A	T	T	T	T	T	T	T	T	A	A	A	A	A	A	A	A	T	-
1898	MAY 3	A	A	A	A	A	A	T	-	A	A	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
1899	MAY 30	A	A	A	A	A	*	A	A	A	T	A	*	T	T	T	T	A	A	T	T	T	T	T	T	T	T	T
1900	JUN 26	A	A	A	A	A	A	T	A	A	T	A	A	A	A	A	T	T	T	T	T	T	T	T	T	T	T	T
1901	JUL 23	T	A	*	T	A	A	*	T	A	*	A	A	A	A	A	A	A	T	A	*	T	T	T	T	T	T	T
1902	AUG 19	A	-	A	-	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1903	SEP 15	A	A	T	A	T	*	A	A	A	A	A	A	T	A	A	A	A	-	A	-	A	-	A	-	A	T	T
1904	OCT 12	T	T	A	-	T	A	-	A	A	*	A	T	A	T	T	A	A	A	A	A	T	A	T	A	T	A	T
1905	NOV 8	A	A	T	A	A	T	A	A	T	A	T	A	T	A	T	A	T	*	A	A	A	A	A	A	A	A	T
1906	DEC 5	T	T	T	T	T	A	A	T	T	-	T	-	T	T	T	T	T	A	A	T	A	T	T	A	T	T	T
1907	1973 JAN 1	T	T	T	T	T	T	T	T	T	A	T	T	T	T	A	T	T	-	A	T	A	-	A	T	T	T	T
1908	JAN 28	T	T	A	A	T	T	A	T	T	A	T	T	T	T	T	T	T	A	T	T	T	T	T	T	T	T	T
1909	FEB 24	A	T	T	A	T	T	A	A	T	A	T	A	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T
1910	MAR 23	T	T	T	T	T	T	T	A	T	T	T	T	T	T	T	A	T	A	T	T	T	T	T	T	T	T	T
1911	APR 19	T	T	T	A	T	T	-	A	T	T	T	T	A	T	T	T	T	A	T	T	T	T	T	T	T	T	T
1912	MAY 16	T	T	T	T	T	T	T	T	A	T	T	-	T	-	T	A	T	T	A	A	T	A	T	T	T	T	T
1913	JUN 12	T	A	T	*	-	T	*	-	T	T	A	T	T	A	T	T	T	T	T	T	T	T	T	T	T	T	T
1914	JUL 9	T	T	T	T	T	A	A	T	T	-	T	A	T	A	T	T	*	A	T	*	-	A	A	T	A	T	T
1915	AUG 5	T	T	A	A	A	A	T	A	T	A	A	A	T	T	T	T	A	T	T	*	T	A	T	T	A	T	T
1916	SEP 1	T	T	A	*	T	T	T	A	A	T	A	*	A	A	A	*	T	T	T	T	T	T	T	T	T	T	T
1917	SEP 28	A	A	*	T	A	A	T	A	T	T	T	A	A	A	A	A	A	T	A	A	T	A	T	*	A	T	T
1918	OCT 25	T	T	T	T	A	T	A	A	A	A	T	A	*	T	A	T	A	T	A	A	A	A	A	A	A	A	A
1919	NOV 21	A	*	T	T	T	-	A	A	A	A	T	T	A	T	A	*	T	A	A	A	A	A	A	A	A	T	T
1920	DEC 18	T	T	A	T	A	A	T	A	T	A	T	A	T	A	*	A	A	A	*	A	T	T	T	T	T	T	T
1921	1974 JAN 14	T	A	A	T	-	T	T	A	A	T	A	A	A	A	A	A	-	A	A	-	A	T	-	T	T	T	T
1922	FEB 10	A	-	A	-	A	*	A	A	A	A	A	A	A	A	T	A	T	A	A	A	A	T	*	T	T	T	T
1923	MAR 9	A	A	A	A	A	A	A	A	A	A	A	A	A	A	T	T	A	T	A	T	A	T	A	T	A	T	A
1924	APR 5	A	A	A	A	A	-	T	A	A	A	A	A	A	A	*	A	A	A	A	A	A	A	A	T	T	T	T
1925	MAY 2	-	-	A	A	A	A	*	A	T	A	A	T	A	T	T	A	*	T	A	A	T	A	T	*	A	A	A
1926	MAY 29	T	T	A	A	A	A	*	-	A	A	A	A	*	A	A	*	-	T	A	*	A	A	A	A	T	T	T
1927	JUN 25	T	A	T	A	A	A	-	A	-	A	A	T	A	A	A	A	A	A	A	A	A	-	T	A	T	A	-
1928	JUL 22	T	T	A	A	A	A	A	T	A	A	A	A	A	A	A	A	A	A	A	A	A	-	T	-	T	-	T
1929	AUG 18	A	T	-	A	-	A	-	A	-	A	-	A	-	A	-	A	-	A	T	-	T	A	T	T	T	T	T
1930	SEP 14	A	T	T	T	A	T	A	*	A	A	A	A	A	A	A	A	T	A	A	A	A	T	T	T	A	T	T
1931	OCT 11	T	T	T	A	T	A	A	A	A	A	A	A	A	A	A	A	T	A	A	A	T	T	T	T	T	T	T
1932	NOV 7	T	A	-	T	-	A	-	A	-	A	A	A	A	A	A	A	A	-	A	-	A	T	-	T	T	T	T
1933	DEC 4	T	T	T	A	T	T	A	T	A	A	A	T	A	T	A	*	A	T	T	*	A	T	T	T	T	T	T
1934	DEC 31	T	A	T	T	T	T	A	T	A	A	T	A	T	A	-	A	-	T	A	T	A	A	T	-	A	*	A
1935	1975 JAN 27	T	T	T	T	A	T	A	T	T	A	*	A	T	-	T	A	A	T	A	T	A	T	A	T	A	T	A
1936	FEB 23	T	A	A	A	A	A	*	T	A	A	A	T	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T
1937	MAR 22	A	A	A	A	T	A	T	T	A	A	*	A	A	A	A	A	A	A	T	A	T	T	T	T	T	T	T
1938	APR 18	A	A	A	A	A	A	A	A	A	-	A	A	A	A	T	A											

T = towards the sun
A = away from the sun
* = effect doubtful or not discernable
- = missing data

The table shows daily inferences of the polarity of the interplanetary magnetic field. The first half of the day is based principally on magnetograms produced by the magnetometer at the Vostok Anarctic Station of the USSR. The magnetometer of the U.S. Air Weather Service operated by the Air Force Cambridge Research Laboratories at the Thule Geopole Station is used for the second half of the day.

Note: Computer problems are responsible for the considerable amount of missing data in August 1974.

The Inferred Interplanetary Magnetic Fields based on Thule data are not available at time of publication for the month of April, 1975.

MARCH 1975 DATA

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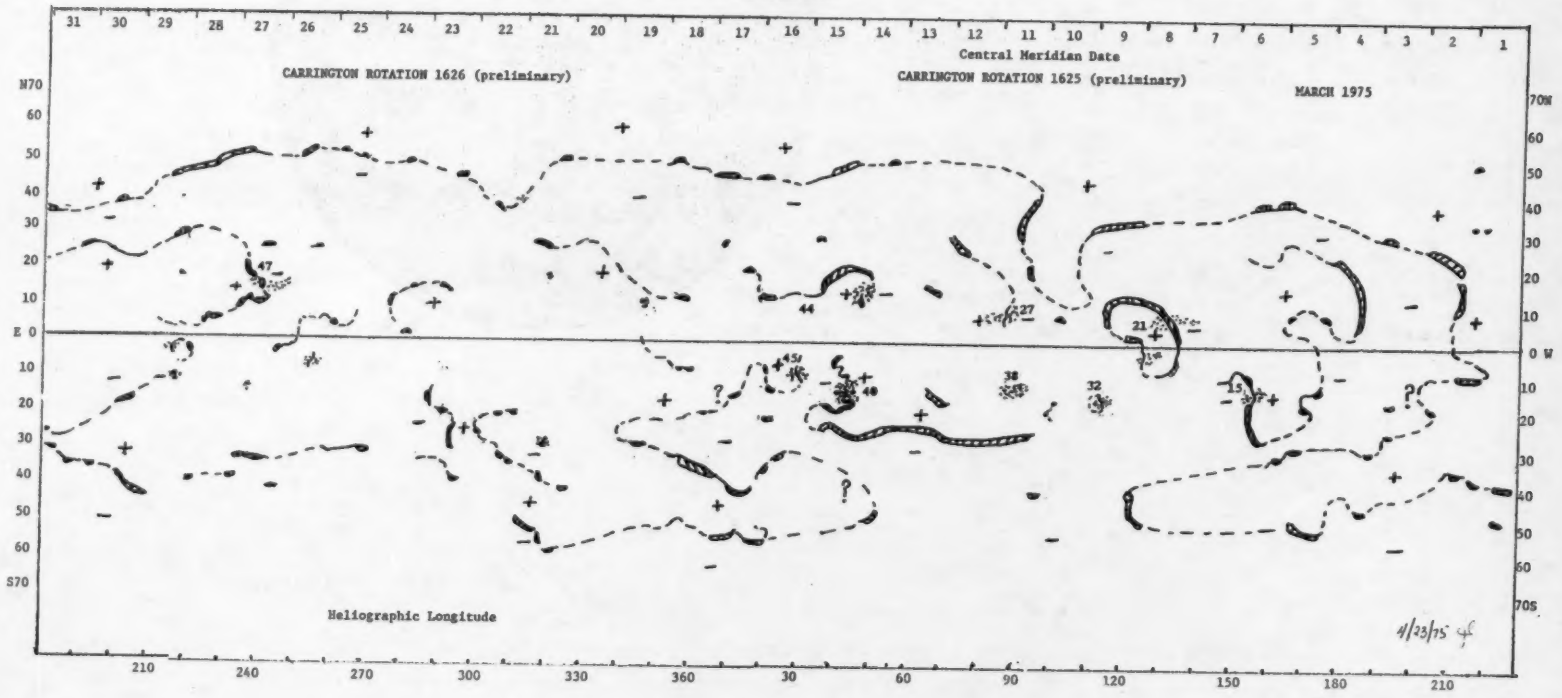
Hα SYNOPTIC CHART

MARCH 1975

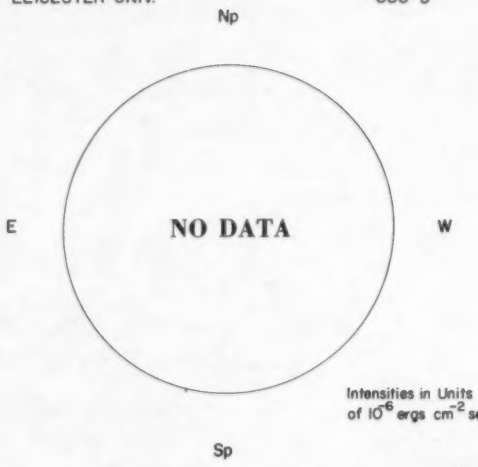


25 Mar 75

MARCH 1, 1975 (P = -21.42, B_o = -7.21, L_o = 229.27)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

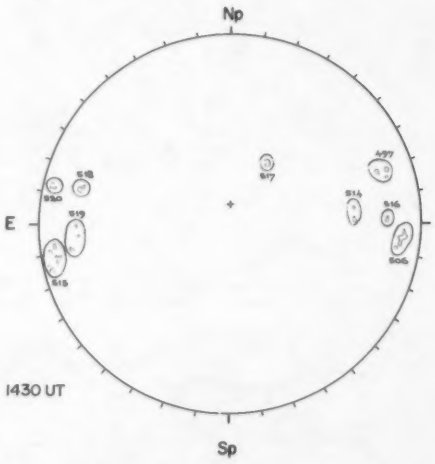
X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

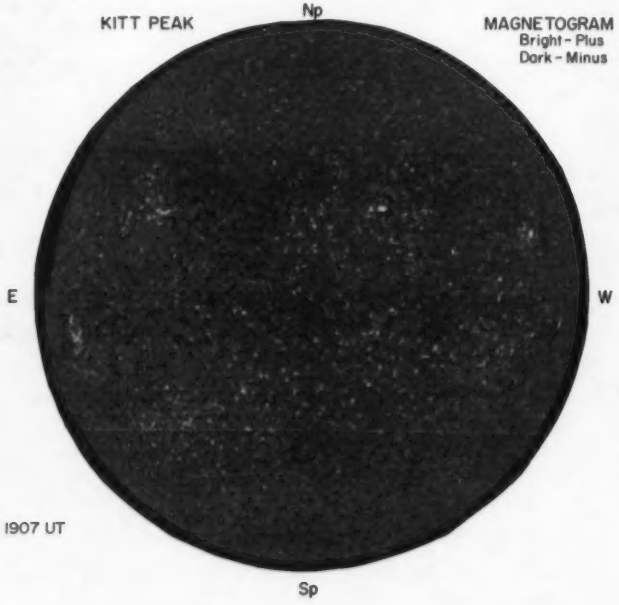
CALCIUM REPORT



1430 UT

GOOD | D
17 - 0200 - 2.5

KITT PEAK

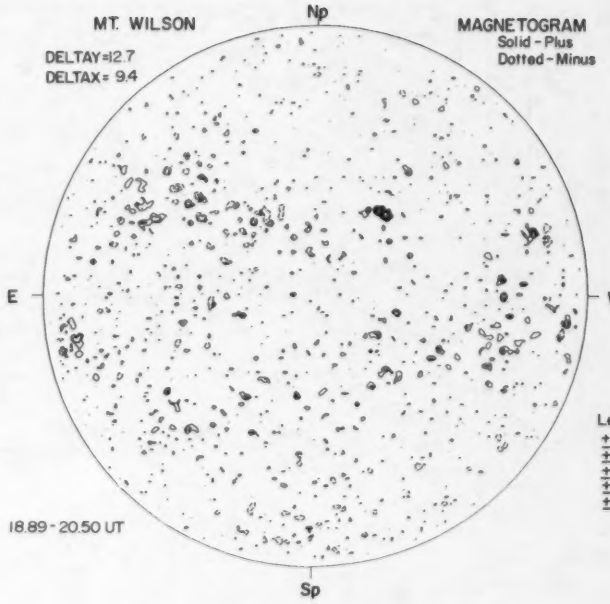


MAGNETOGRAM
Bright - Plus
Dark - Minus

1907 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4

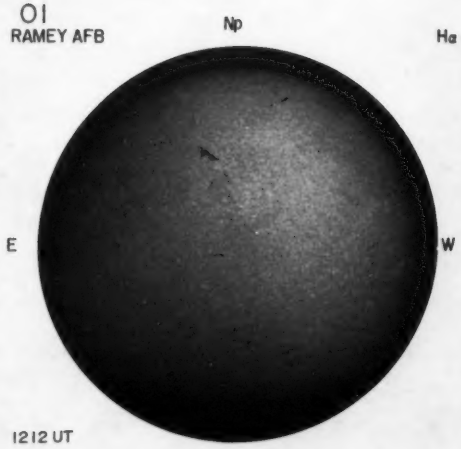


MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
±5
±10
±20
±40
±80

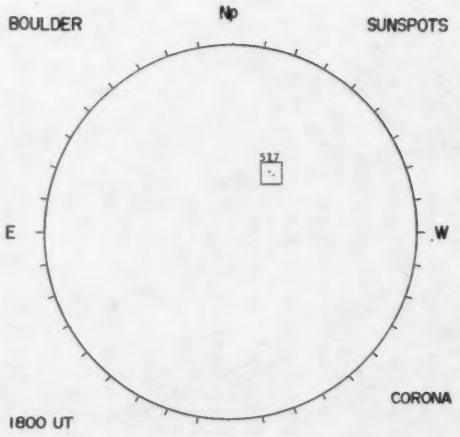
18.89 - 20.50 UT

01
RAMEY AFB



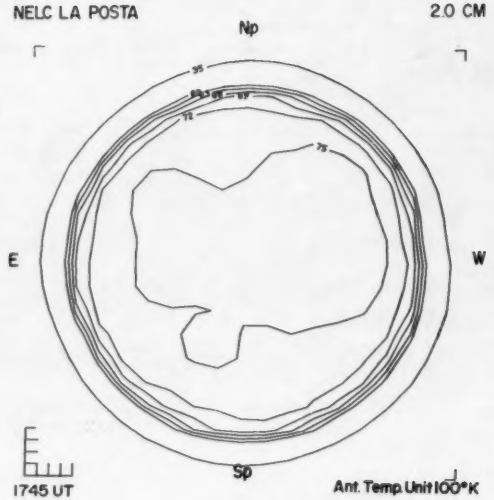
1212 UT

BOULDER



1800 UT

NELC LA POSTA



1745 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

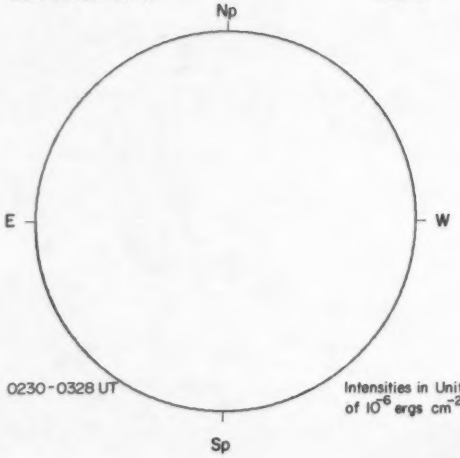
Ant. Temp. Unit 100°K

27
Mar 75

MARCH 2, 1975 (P = - 21.68, B_o = - 7.23, L_o = 216.09)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

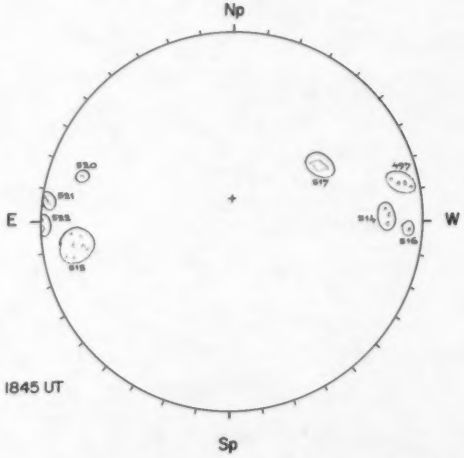


0230 - 0328 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

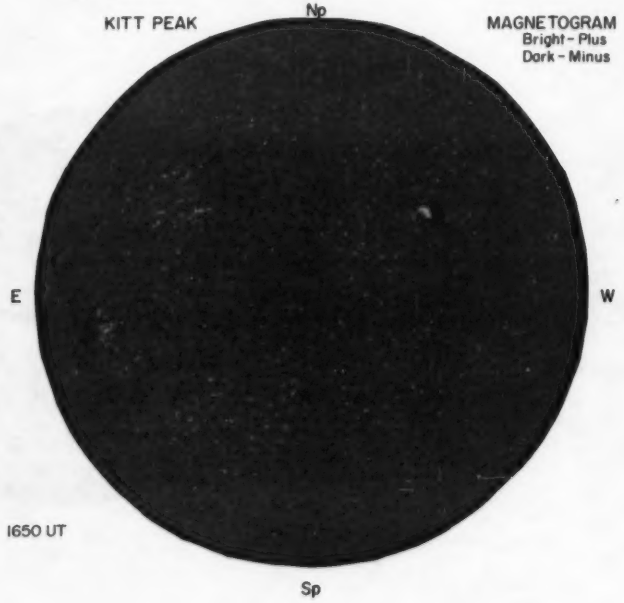


POOR | S
17 - 0500 - 30

1845 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

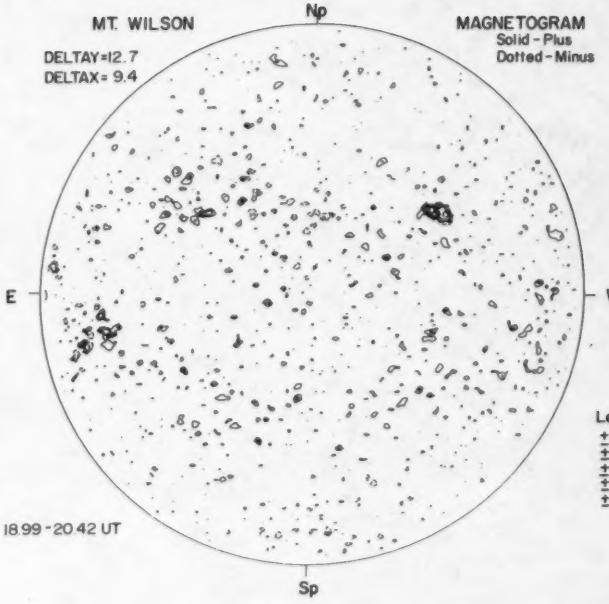


1650 UT

MT. WILSON

DELTAY = 12.7
DELTAX = 9.4

MAGNETOGRAM
Solid - Plus
Dotted - Minus

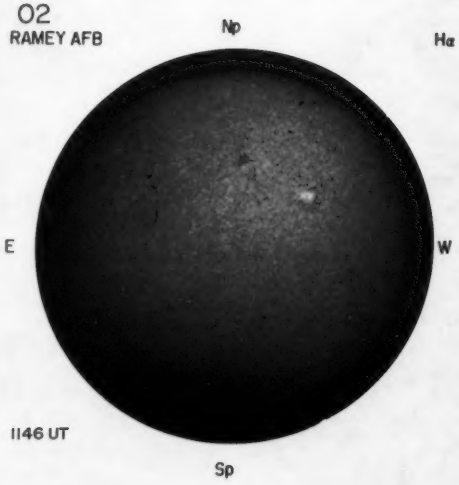


Levels
± 5
± 10
± 20
± 40
± 80

18.99 - 20.42 UT

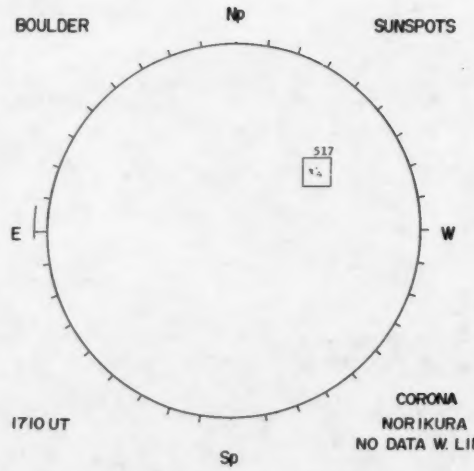
02

RAMEY AFB



1146 UT

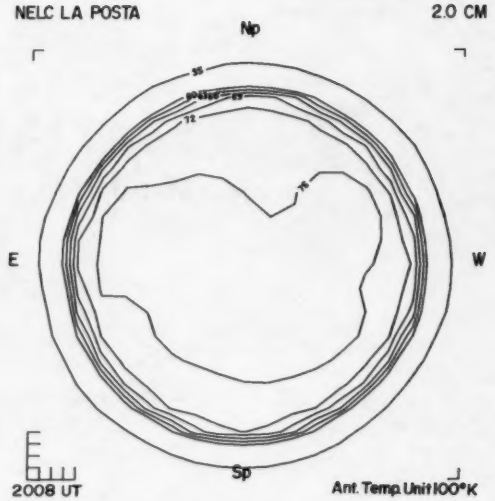
BOULDER



1710 UT

CORONA
NORIKURA
NO DATA W. LIMB

NELC LA POSTA



2008 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Ant. Temp. Unit 100°K

29 Mar 75

MARCH 3, 1975 (P=-21.92, B_o=-7.24, L_o=202.92)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

E

NO DATA

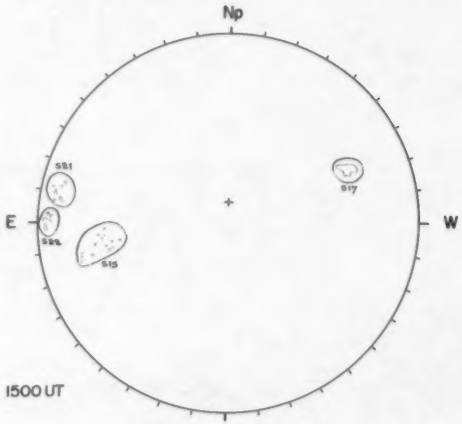
W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

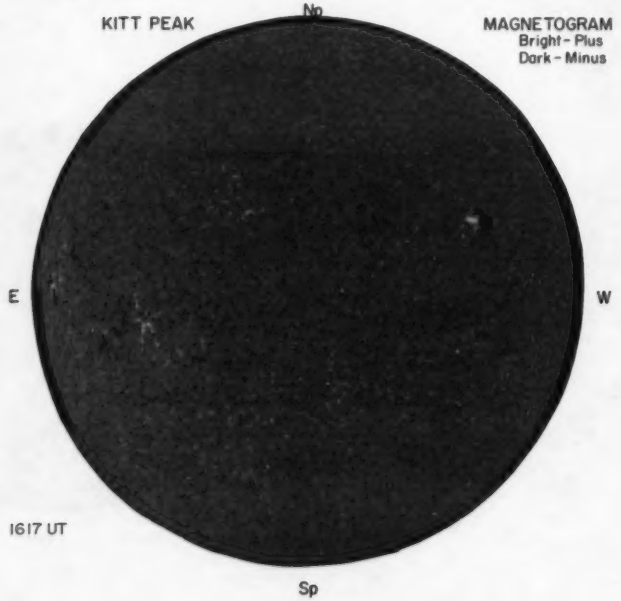


1500 UT

FAIR	S
17 - 1000	-3.0
22 - 0800	-2.5

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

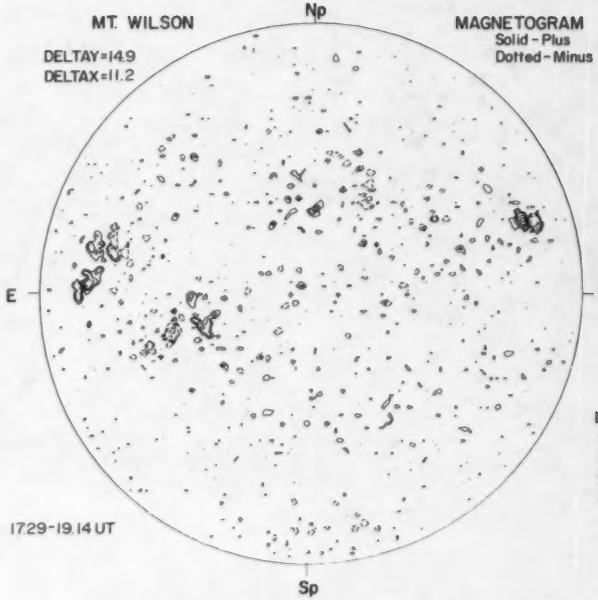


1617 UT

MT. WILSON

DELTAY=14.9
DELTAX=11.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus

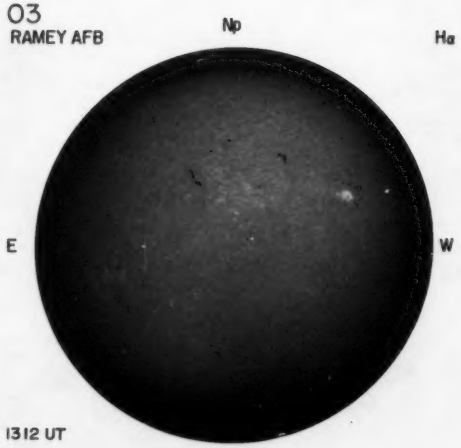


Levels
± 5
± 10
± 20
± 40
± 80

17.29-19.14 UT

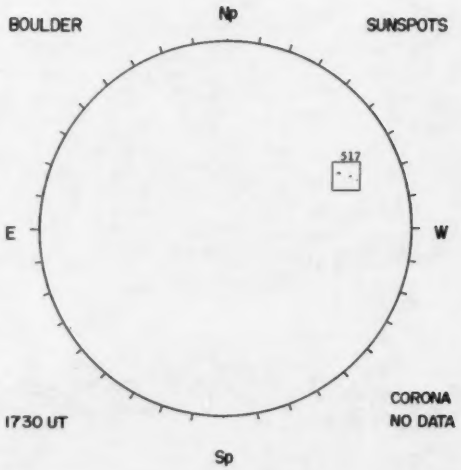
03

RAMEY AFB



1312 UT

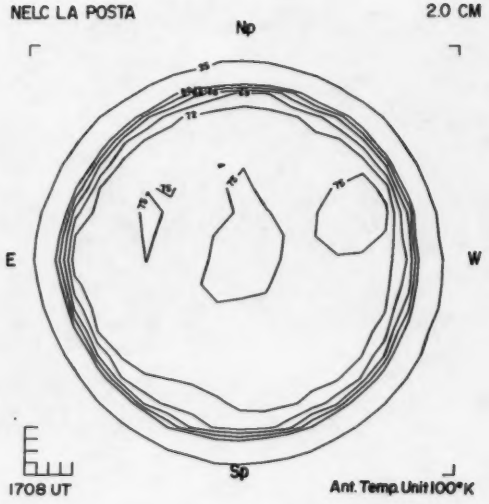
BOULDER



1730 UT

CORONA
NO DATA

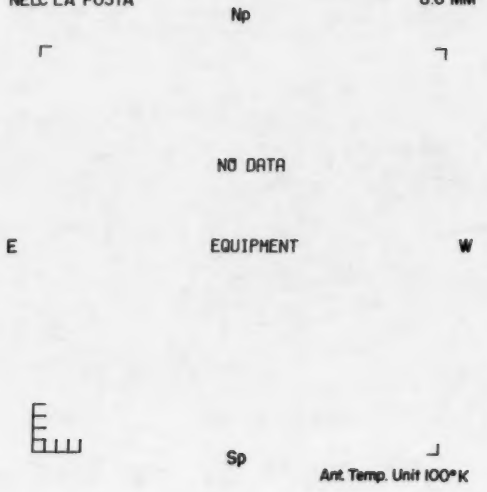
NELC LA POSTA



1708 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



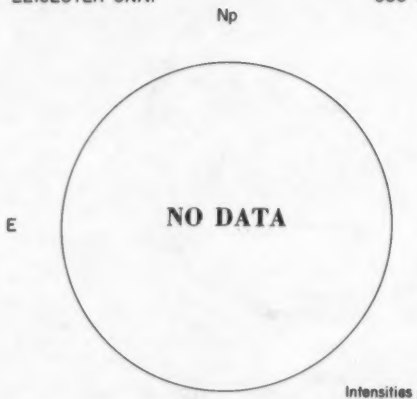
Ant. Temp. Unit 100°K

31
Mar 75

MARCH 4, 1975 (P=-22.16, B_o=-7.24, L_o=189.75)

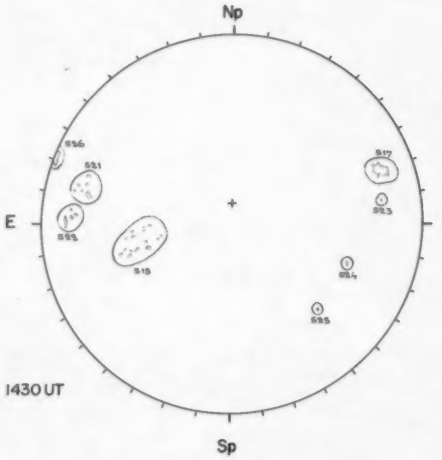
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

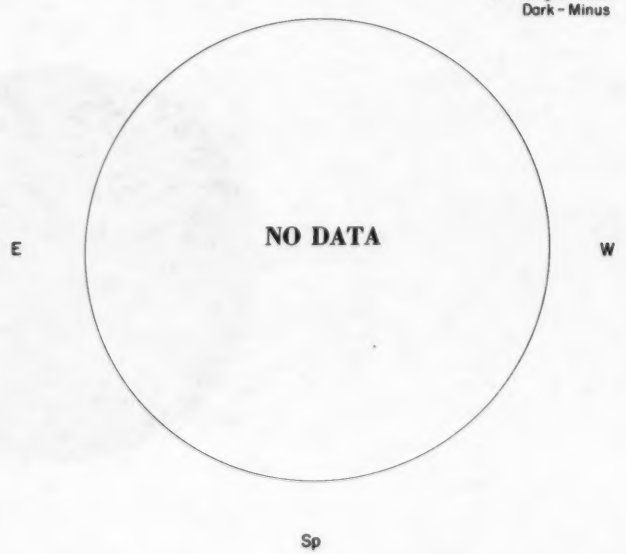


1430 UT

CALCIUM REPORT

POOR	M
17 - 1100	-3.0
22 - 0600	-3.0

KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

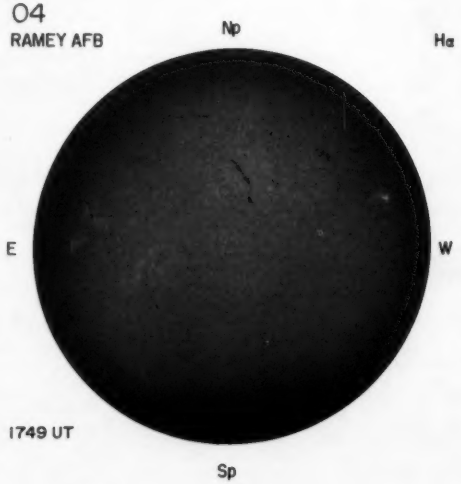
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
±5
±10
±20
±40
±80

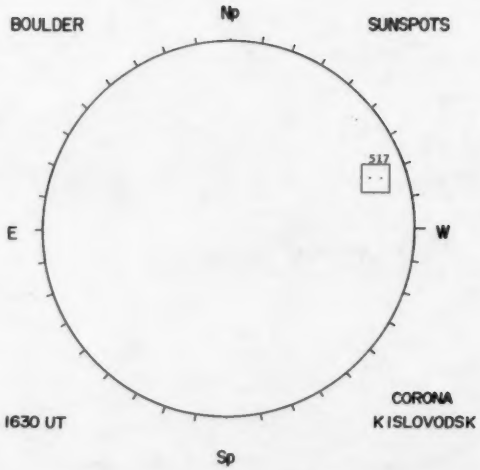
04

RAMEY AFB



1749 UT

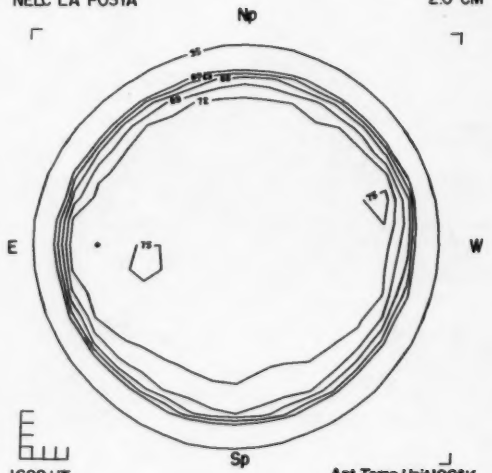
BOULDER



1630 UT

CORONA
KISLOVODSK

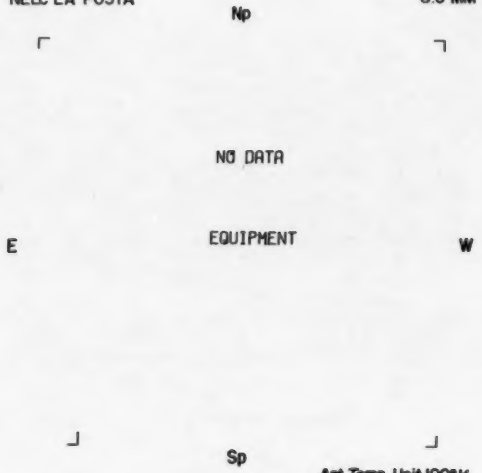
NELC LA POSTA



1629 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



Ant. Temp. Unit 100°K

MARCH 5, 1975 (P=-22.40, B_o=-7.25, L_o=176.57)

UNIV. COLLEGE LONDON
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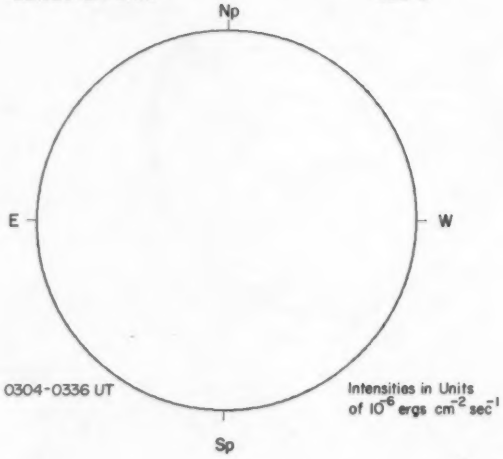
X-RAY
OSO-5

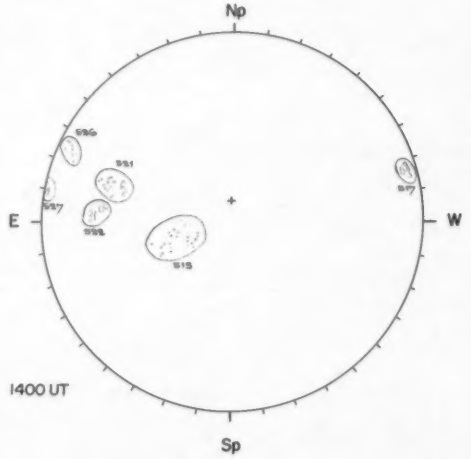


0304-0336 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT



FAIR	S
17 - 0900 - 2.5	
22 - 0600 - 2.5	

1400 UT

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus

NO DATA

E W

Sp

MT. WILSON

Np

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

NO DATA

E W

Sp

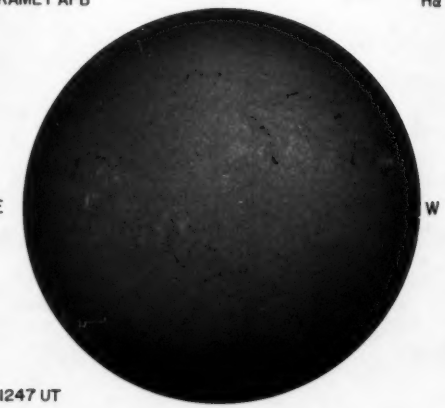
Levels
± 5
± 10
± 20
± 40
± 80

05

RAMEY AFB

Np

Hα



E

W

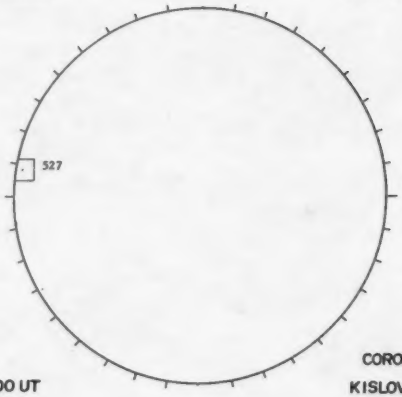
1247 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

CORONA

KISLOVODSK

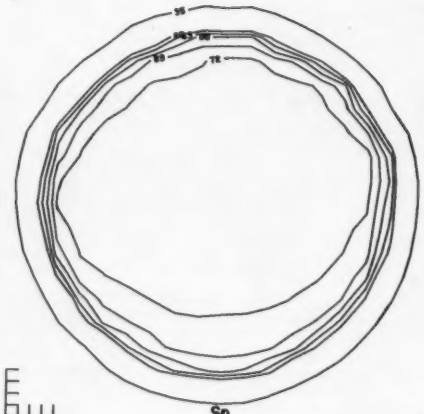
1600 UT

Sp

NELC LA POSTA

Np

2.0 CM



E

W

1527 UT

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

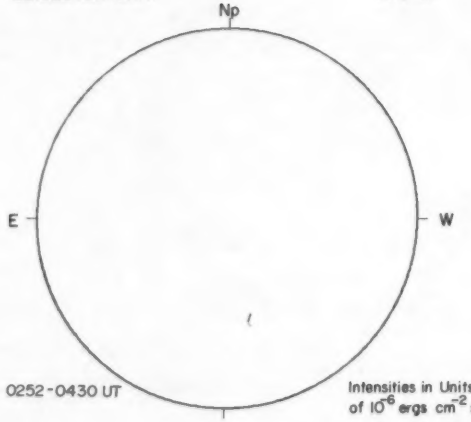
Sp

Ant. Temp. Unit 100°K

MARCH 6, 1975 (P=-22.62, B_o=-7.25, L_o=163.40)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

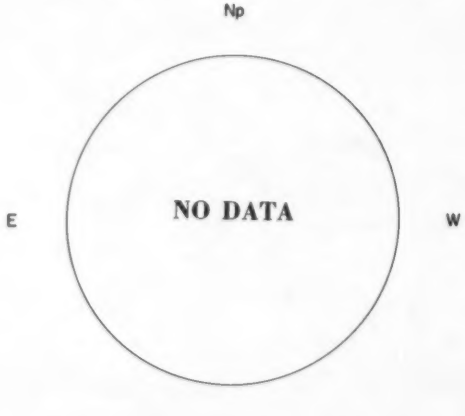
X-RAY
OSO-5



0252-0430 UT

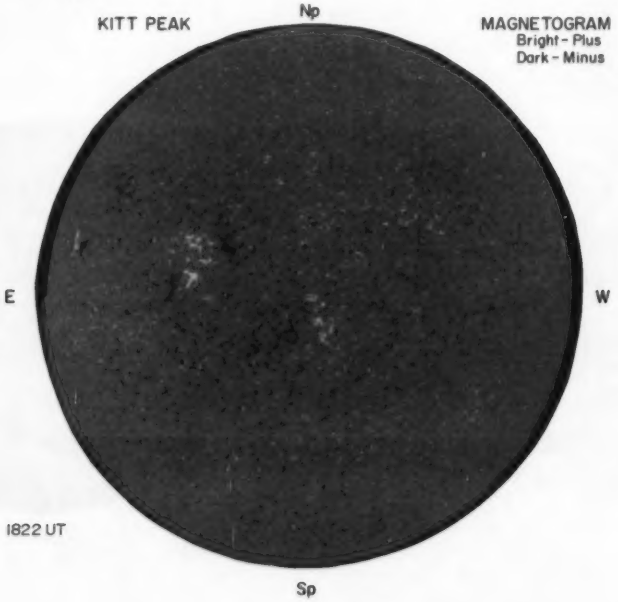
Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



CALCIUM REPORT

KITT PEAK

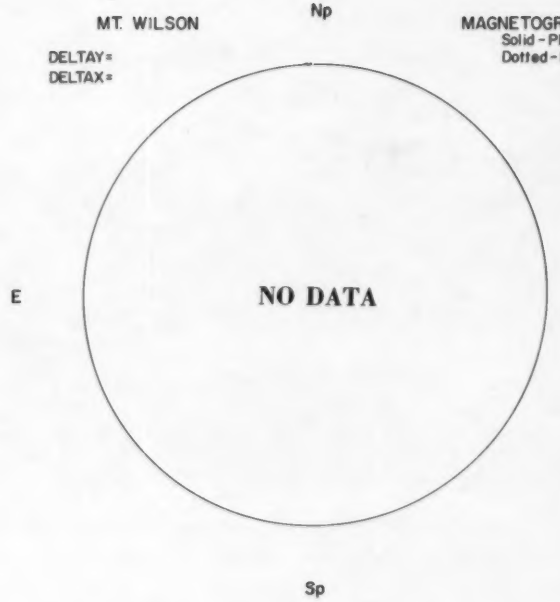


1822 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

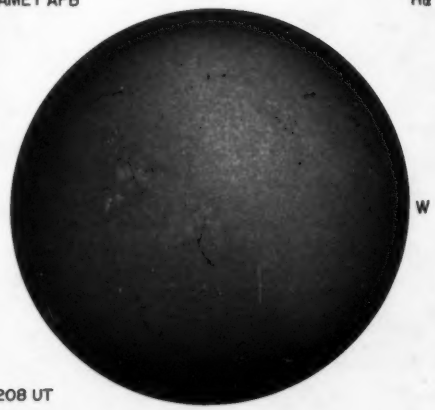
DELTAY=
DELTAX=



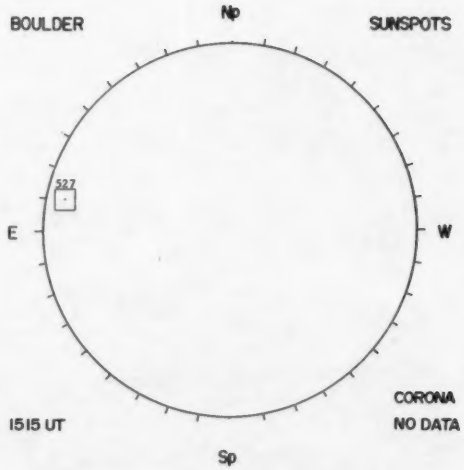
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

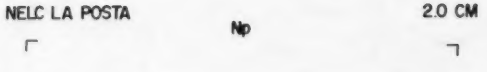
06
RAMEY AFB



BOULDER



NELC LA POSTA

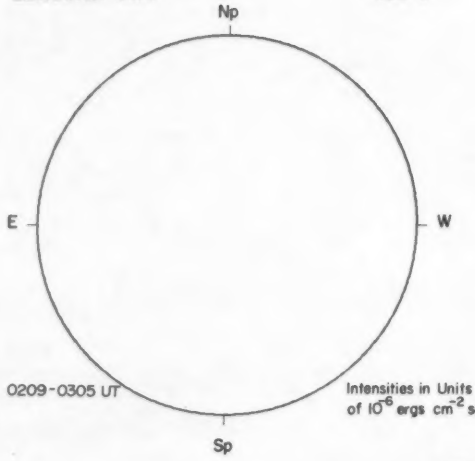


NELC LA POSTA

MARCH 7, 1975 (P=-22.85, B_o=-7.25, L_o=150.22)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



0209-0305 UT

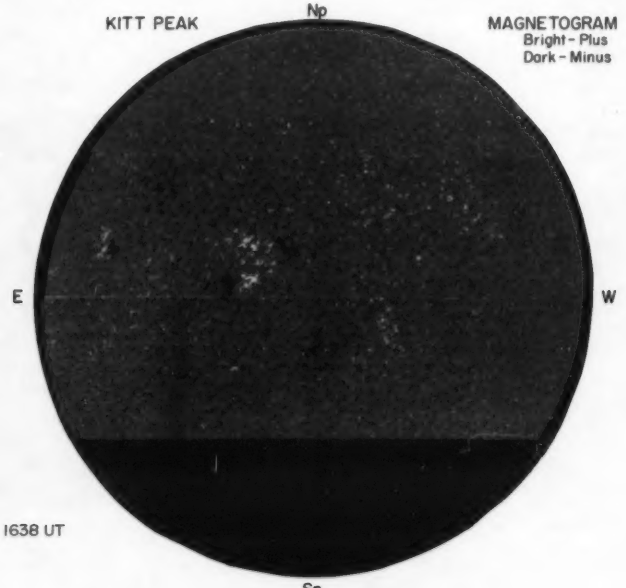
Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

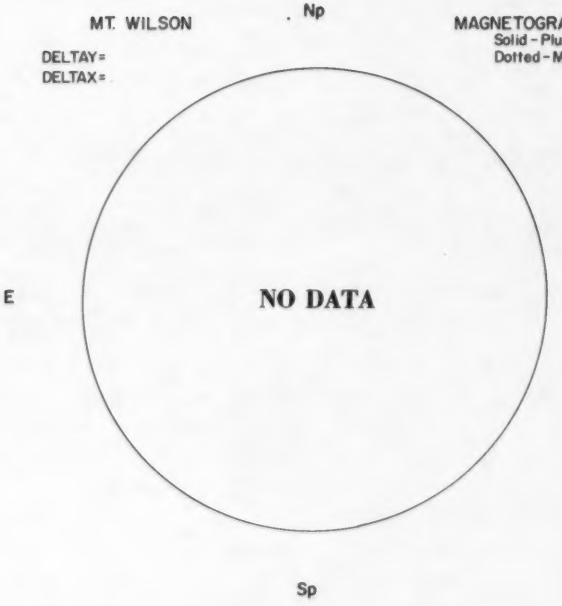


1638 UT

MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



Levels
± 5
± 10
± 20
± 40
± 80

07

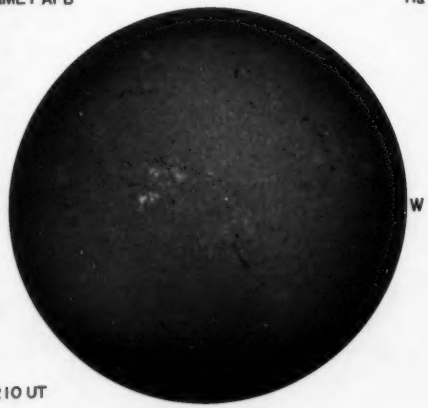
RAMEY AFB

Np

Hα

E

W



1210 UT

Sp

BOULDER

Np

SUNSPOTS

E

W

CORONA

NO DATA

KISLOVODSK

Sp

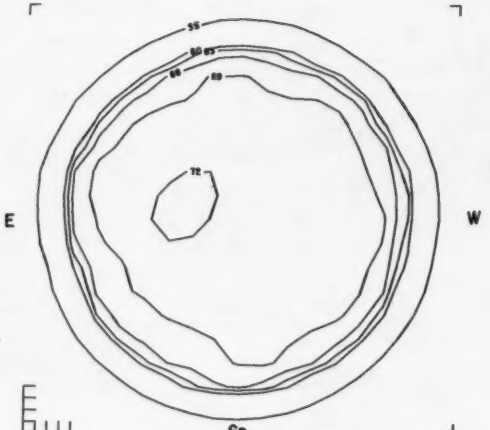
NELC LA POSTA

2.0 CM

Np

E

W



Sp

1650 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

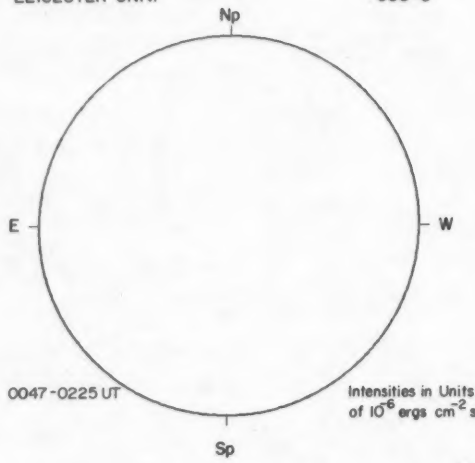
Sp

Ant. Temp. Unit 100°K

MARCH 8, 1975 (P=-23.06, B_o=-7.25, L_o=137.05)

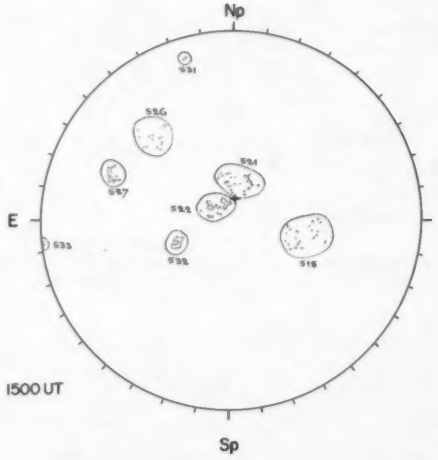
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

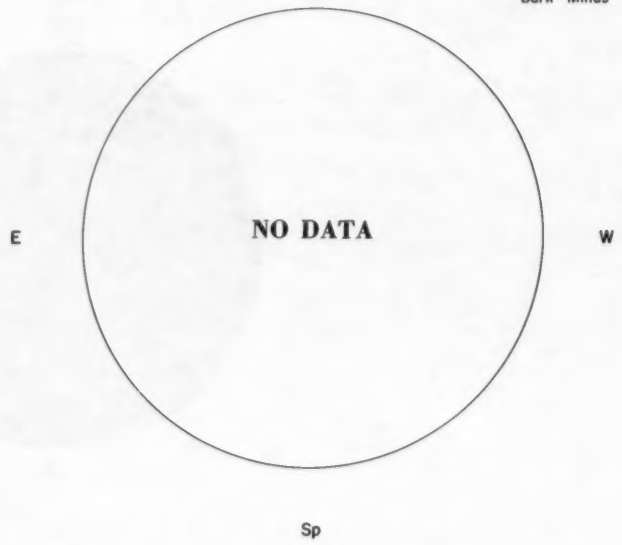


McMATH-HULBERT

CALCIUM REPORT



KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

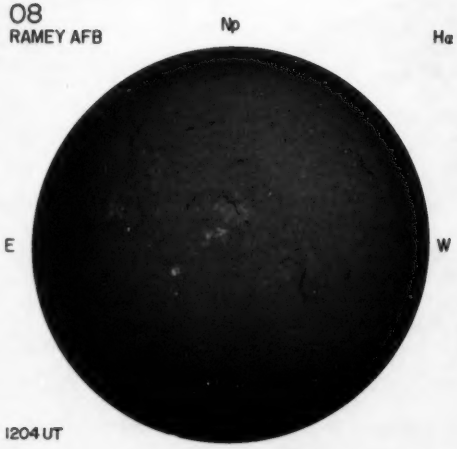
MT. WILSON

DELTAY=
DELTAX=

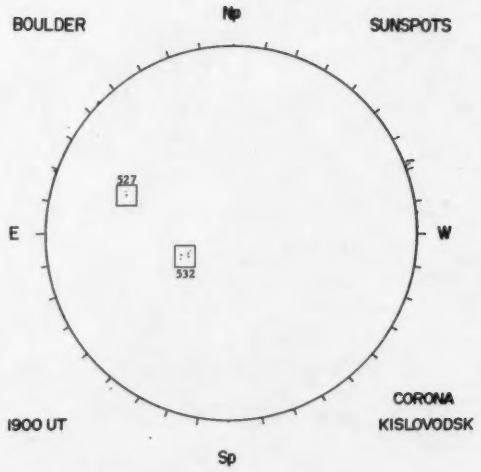
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

08
RAMEY AFB



BOULDER



NELC LA POSTA

NELC LA POSTA

MARCH 9, 1975 (P=-23.27, B_o=-7.24, L_o=123.87)

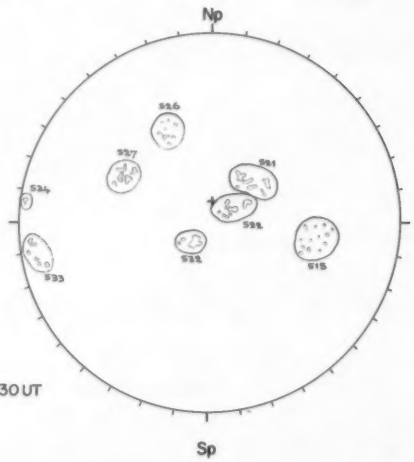
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

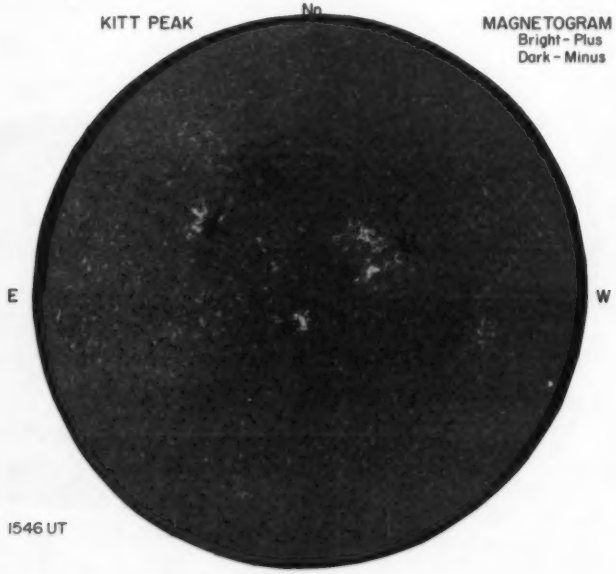


1330 UT

FAIR | D
32 - 0600 - 2.5

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

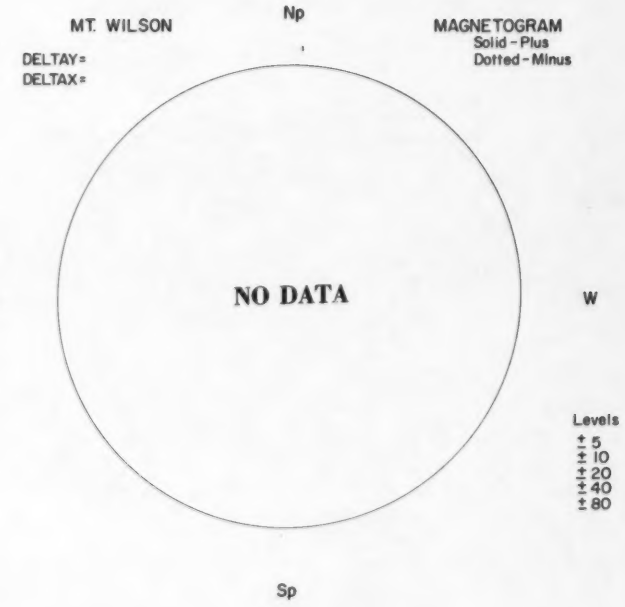


1546 UT

MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

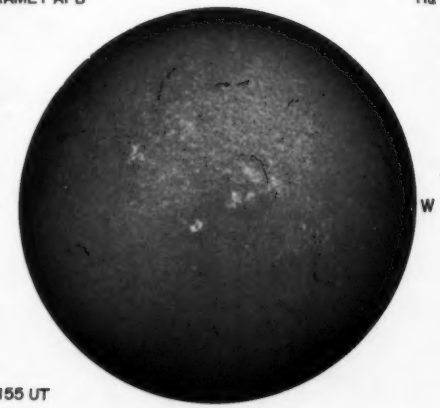


Levels
± 5
± 10
± 20
± 40
± 80

09
RAMEY AFB

Np

Hα



E

W

1155 UT

Sp

BOULDER

Np

SUNSPOTS

E

NO DATA

W

CORONA

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

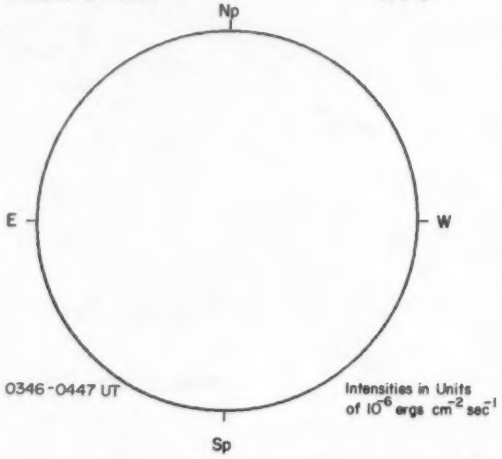
Sp

Ant. Temp. Unit 100°K

MARCH 10, 1975 (P=-23.47, B_o=-7.24, L_o=110.70)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

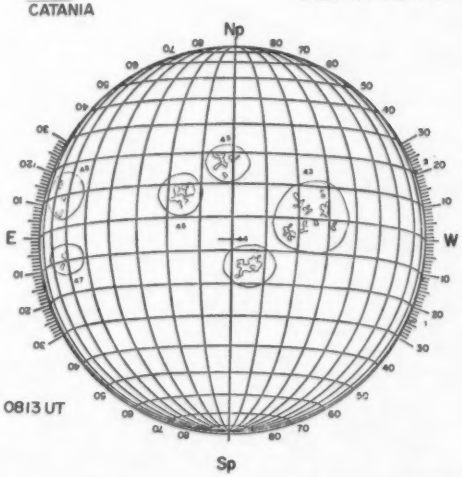


0346-0447 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

CATANIA

CALCIUM REPORT



0813 UT

FAIR SS
43 - 1507 ---
44 - 0972 ---

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

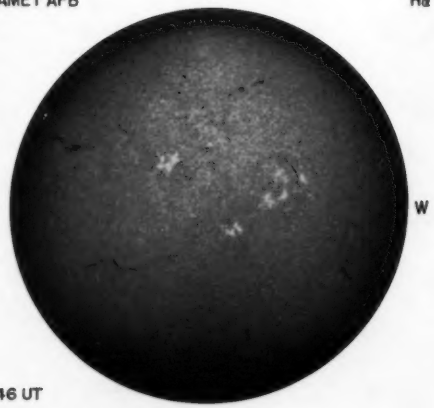
Levels
± 5
± 10
± 20
± 40
± 80

IO

RAMEY AFB

Np

Hα



E

W

1146 UT

Sp

BOULDER

Np

SUNSPOTS

E

NO DATA

W

CORONA

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

MARCH 11, 1975 (P=-23.67, B_o=-7.23, L_o=97.52)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

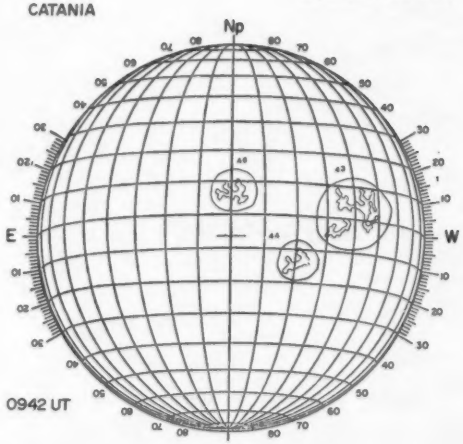
E NO DATA W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

CATANIA

CALCIUM REPORT



0942 UT

POOR	GD
43 - 3399	---
44 - 0821	---

KITT PEAK

Np

E NO DATA W

Sp

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

Np

E NO DATA W

Sp

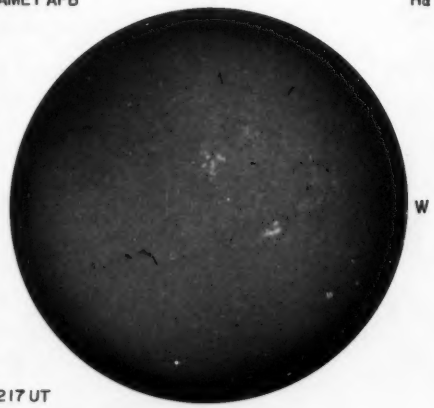
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
±5
±10
±20
±40
±80

RAMEY AFB

Np

Hα



E

W

1217 UT

Sp

BOULDER

Np

SUNSPOTS

E

NO DATA

W

CORONA

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

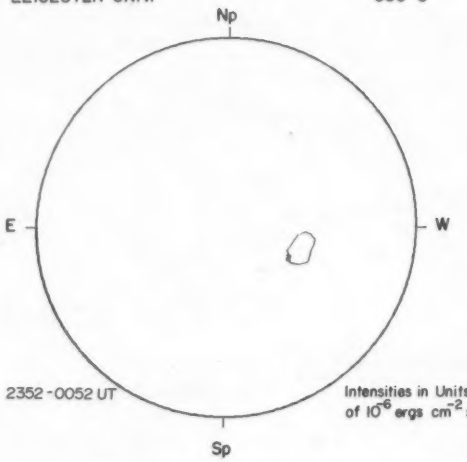
Sp

Ant. Temp. Unit 100°K

MARCH 12, 1975 (P=-23.85, B_o=-7.22, L_o=84.34)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

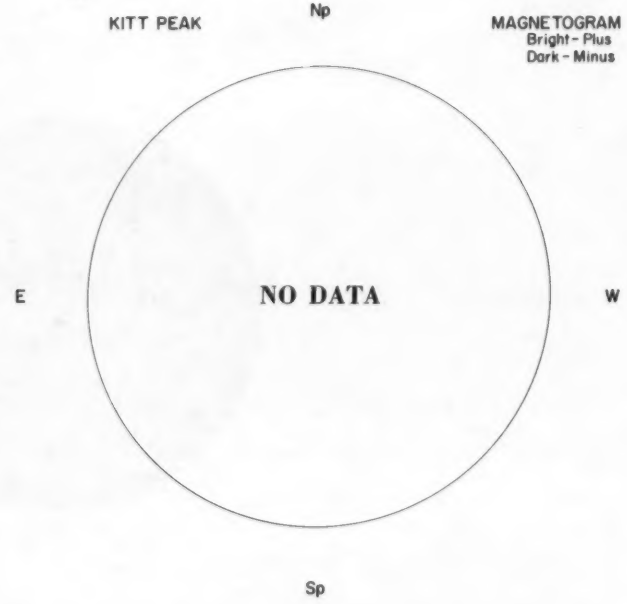


McMATH-HULBERT

CALCIUM REPORT

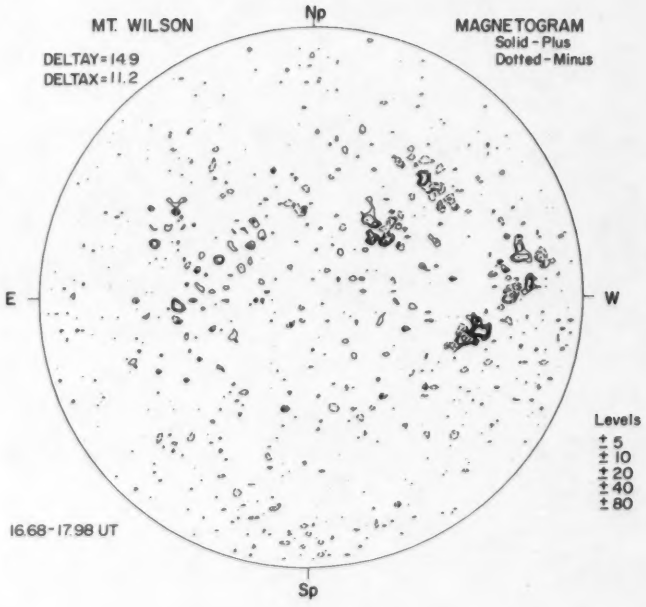
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

MAGNETOGRAM
Solid - Plus
Dotted - Minus



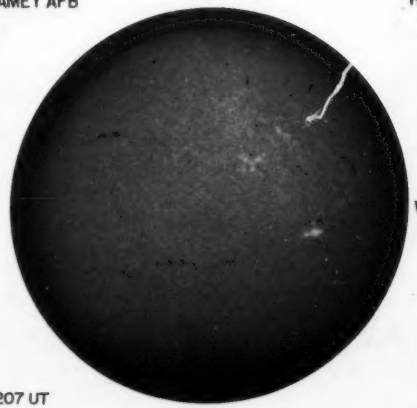
12
RAMEY AFB

Np

Hα

E

W



1207 UT

Sp

BOULDER

Np

SUNSPOTS

E

W

532

CORONA
NO DATA

1830 UT

Sp

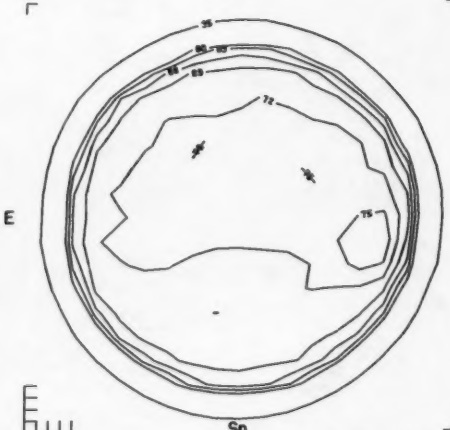
NELC LA POSTA

2.0 CM

Np

E

W



2136 UT

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM

Np

NO DATA

E

EQUIPMENT

W

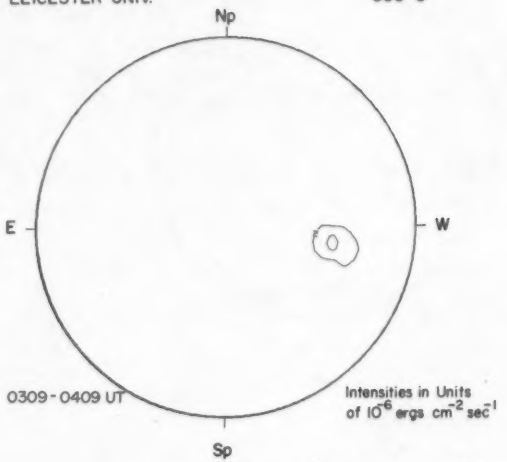
Sp

Ant. Temp. Unit 100°K

MARCH 13, 1975 (P=-24.04, B_o=-7.21, L_o=71.16)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

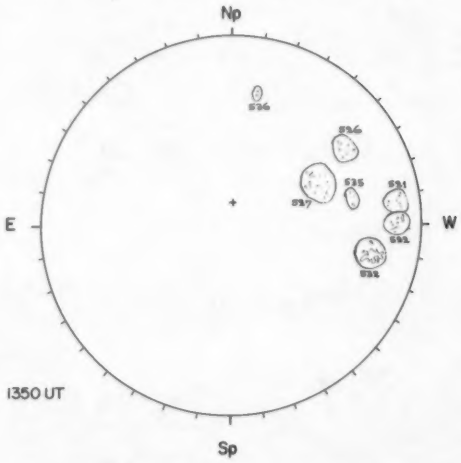


0309 - 0409 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT



1350 UT

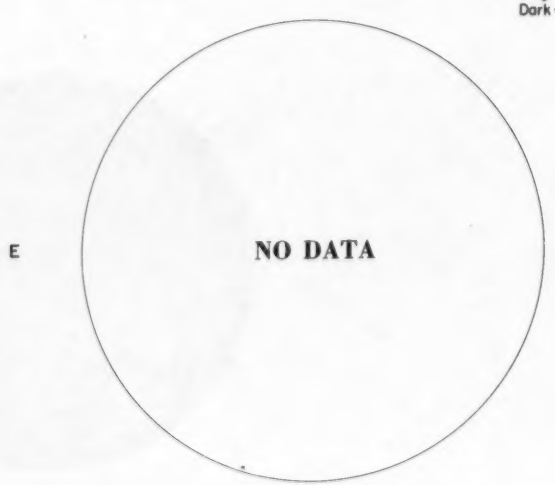
FAIR | S

32 - 1000 - 4.0

KITT PEAK

Np

MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

Np

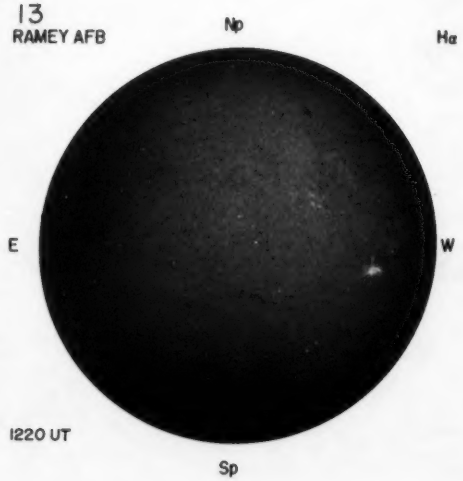
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

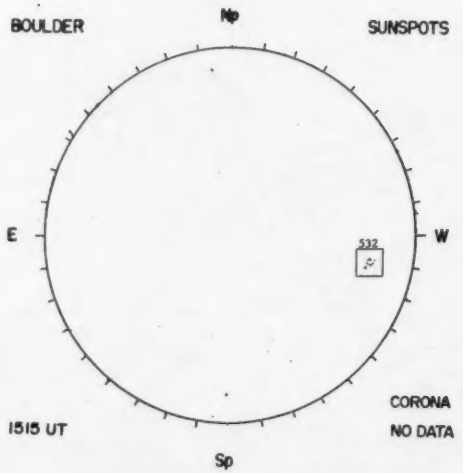
13

RAMEY AFB



BOULDER

SUNSPOTS

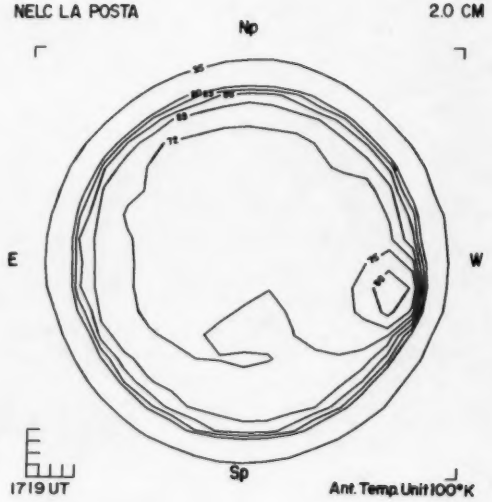


CORONA

NO DATA

NELC LA POSTA

2.0 CM



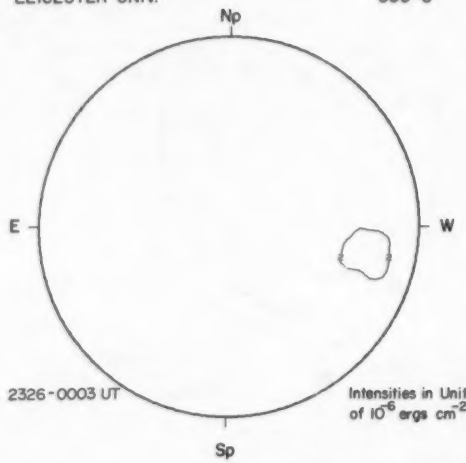
NELC LA POSTA

8.6 MM

MARCH 14, 1975 (P=-24.21, B_o=-7.19, L_o=57.99)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

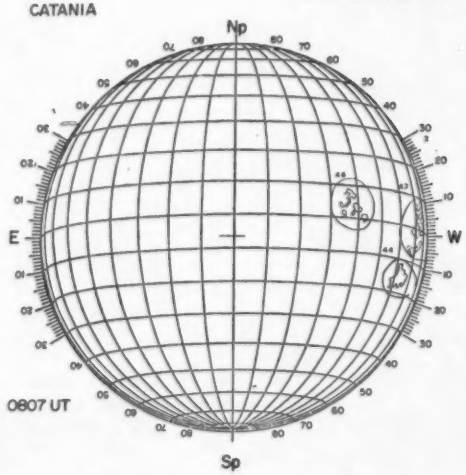


2326-0003 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

CATANIA

CALCIUM REPORT



0807 UT

	POOR	GD
43 - 3850	---	
44 - 1635	---	
46 - 0901	---	

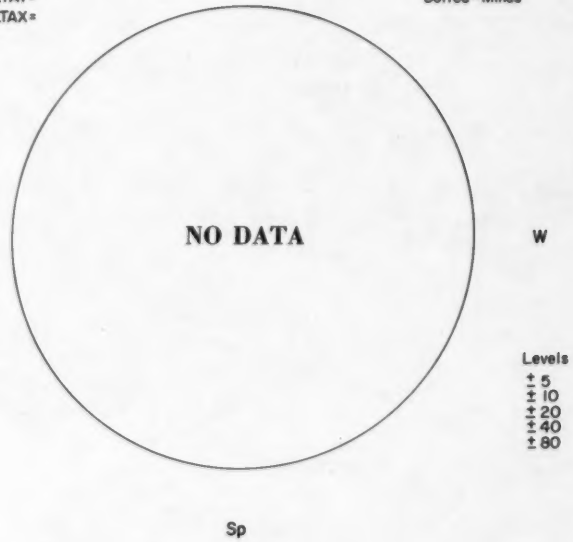
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



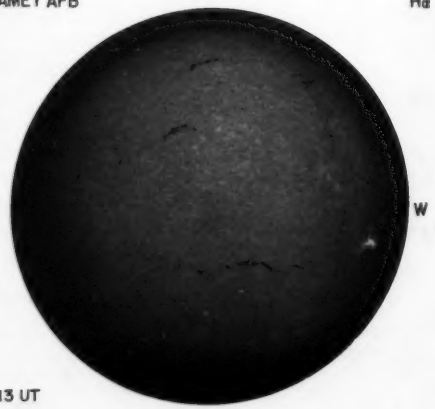
Levels
±5
±10
±20
±40
±80

14

RAMEY AFB

Np

Hα



E

W

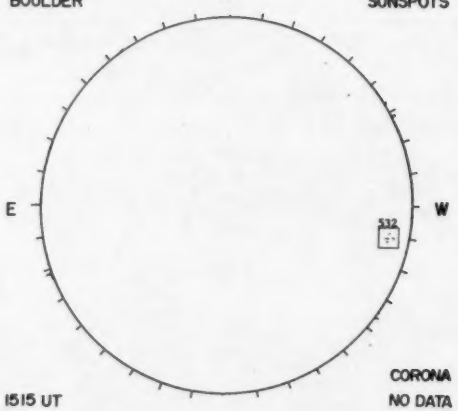
1213 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

1515 UT

CORONA

NO DATA

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

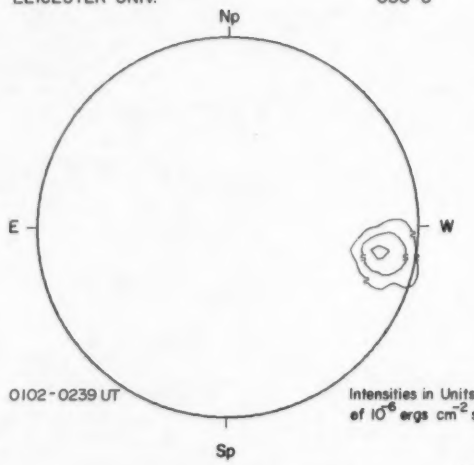
Sp

Ant. Temp. Unit 100°K

MARCH 15, 1975 (P=-24.38, B_o=-7.17, L_o=44.81)

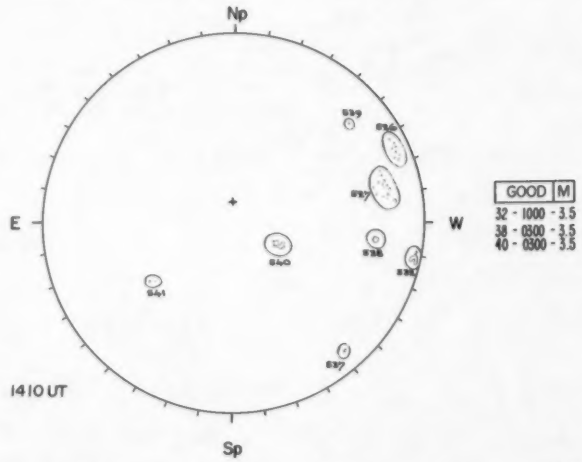
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



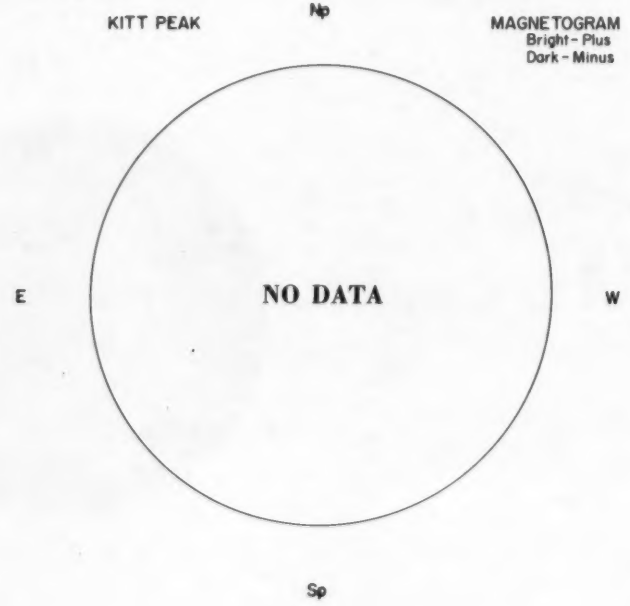
McMATH-HULBERT

CALCIUM REPORT



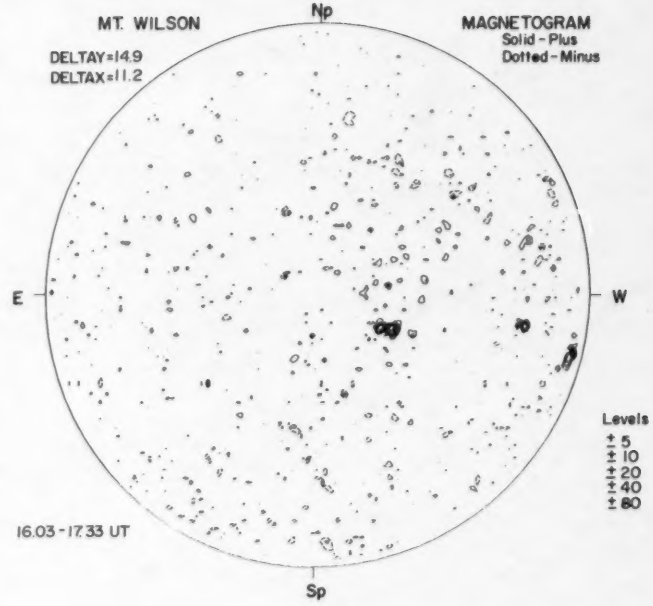
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus



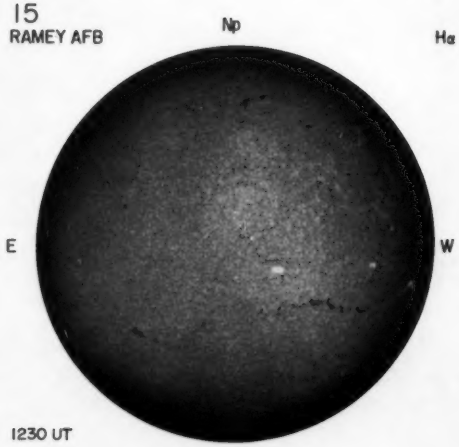
MT. WILSON

MAGNETOGRAM
Solid - Plus
Dotted - Minus

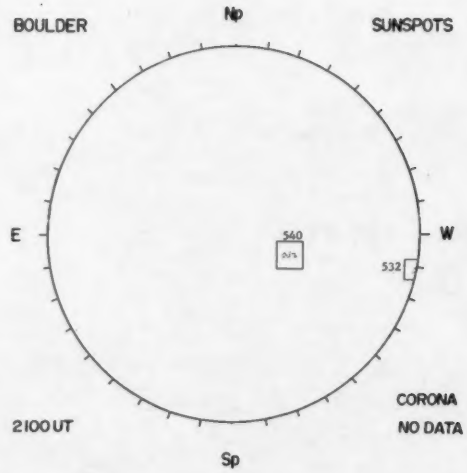


15

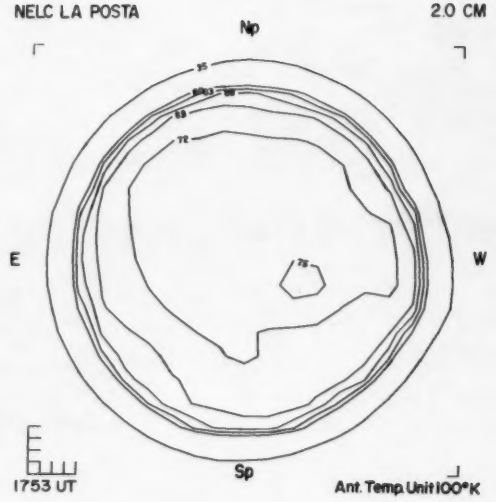
RAMEY AFB



BOULDER



NELC LA POSTA

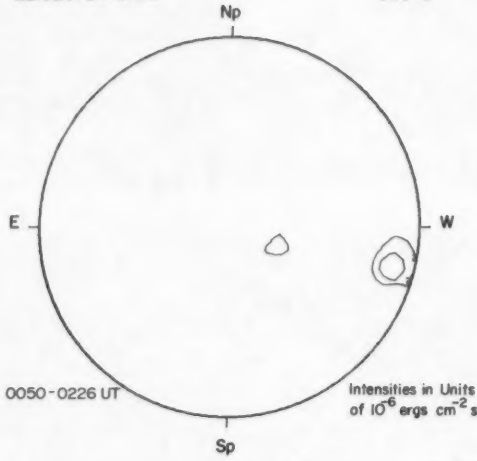


NELC LA POSTA

MARCH 16, 1975 (P=-24.54, B_o=-7.15, L_o=31.63)

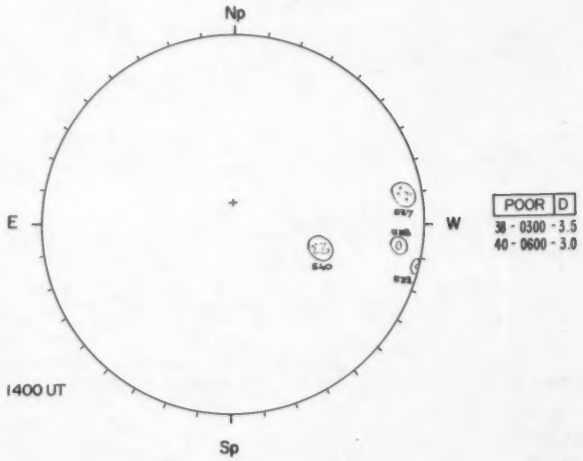
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



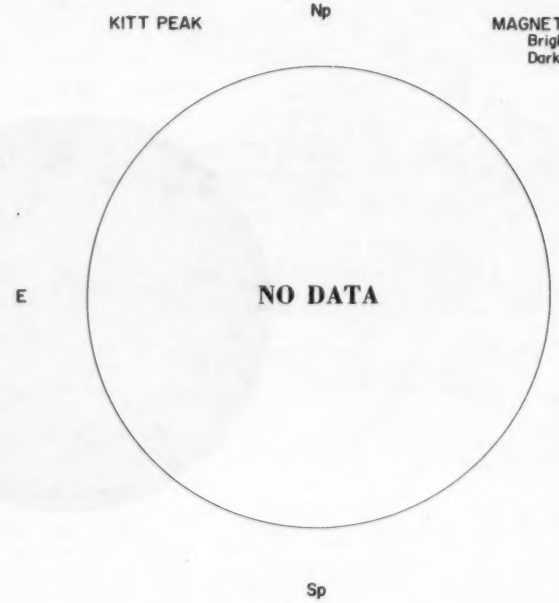
McMATH-HULBERT

CALCIUM REPORT



KITT PEAK

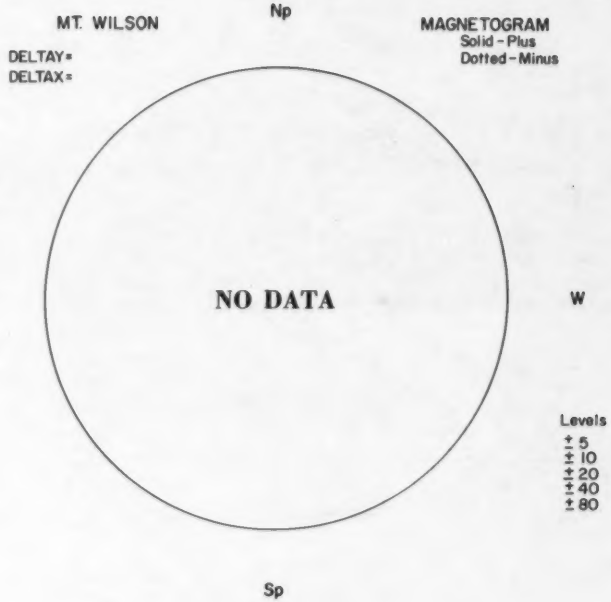
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

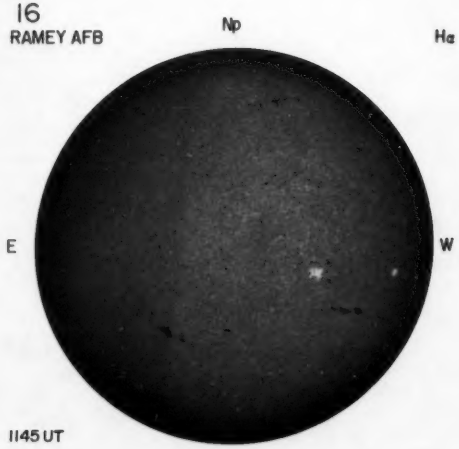
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



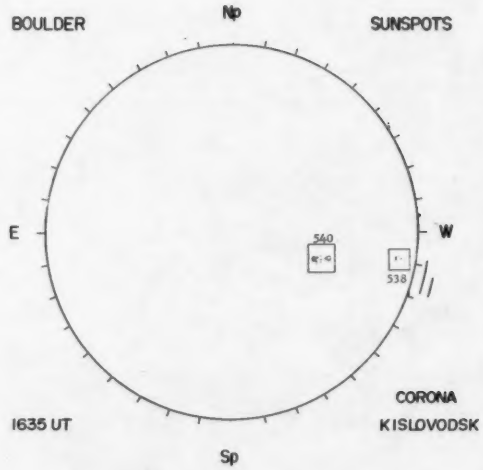
16

RAMEY AFB



1145 UT

BOULDER

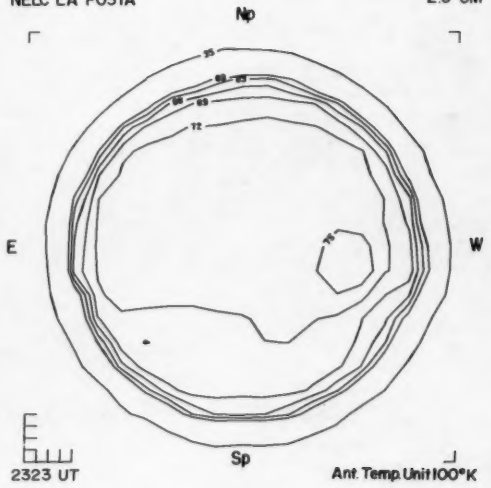


1635 UT

CORONA

KISLOVODSK

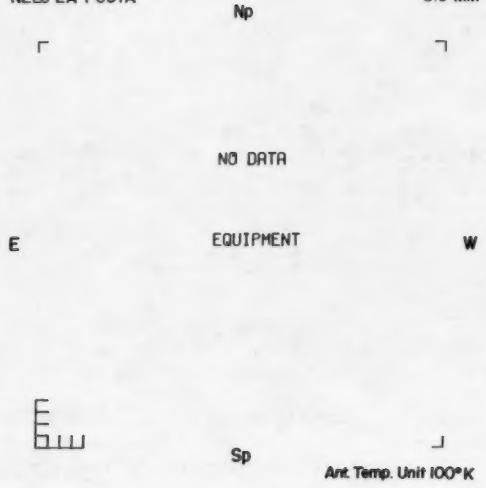
NELC LA POSTA



2323 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

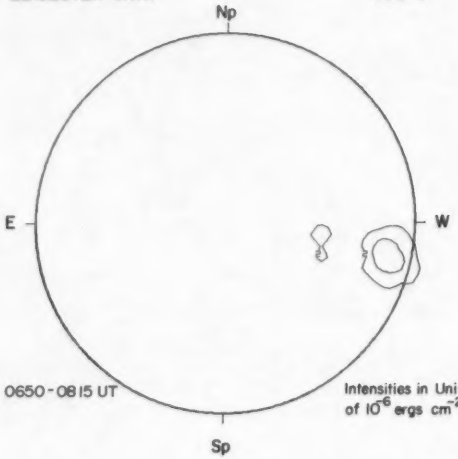


Ant. Temp. Unit 100°K

MARCH 17, 1975 (P=-24.69, B_o=-7.13, L_o=18.45)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

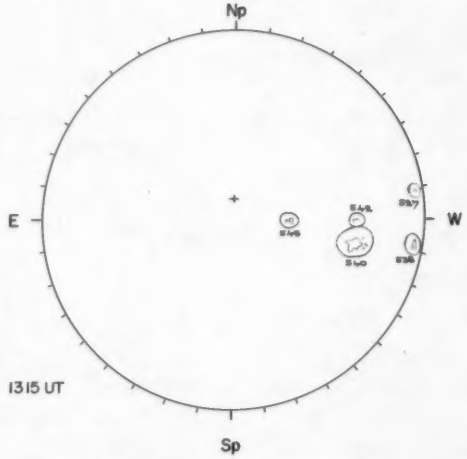


0650-0815 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

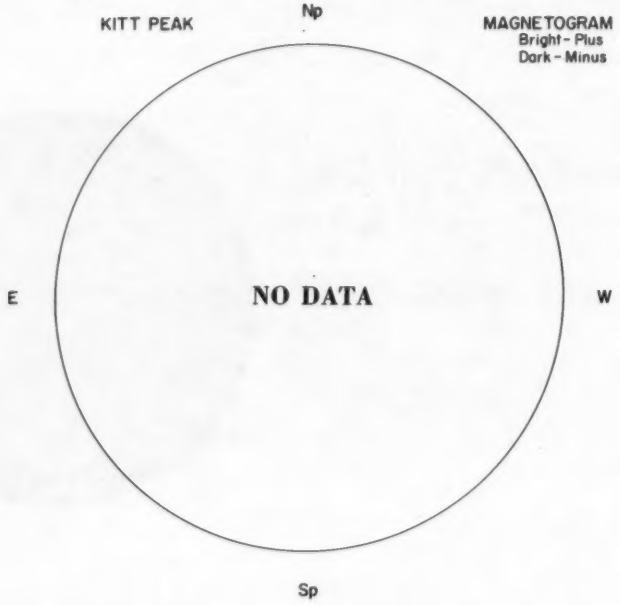


1315 UT

FAIR	D
38 - 0400 - 3.0	
40 - 0800 - 3.0	

KITT PEAK

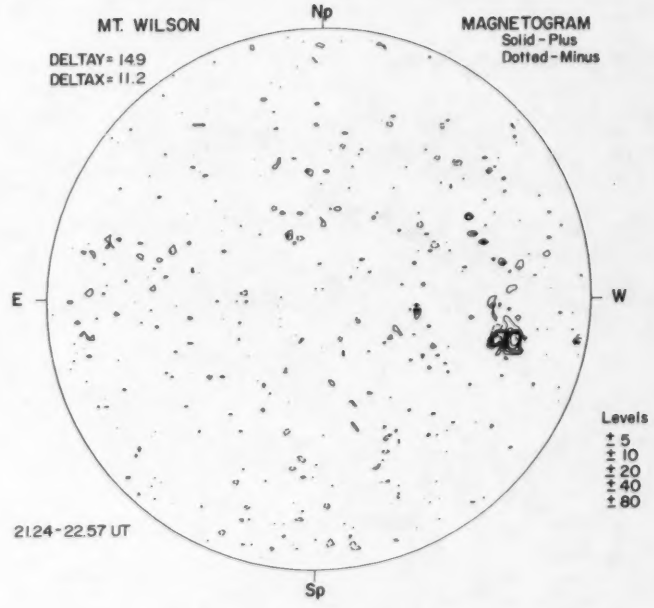
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY= 14.9
DELTAX= 11.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus

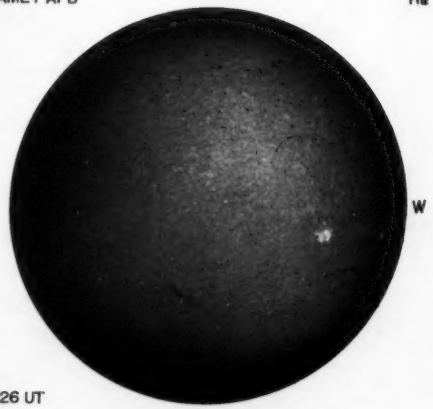


21.24-22.57 UT

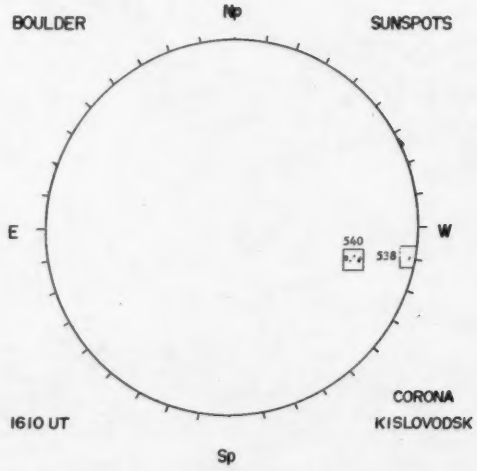
Levels
± 5
± 10
± 20
± 40
± 80

17

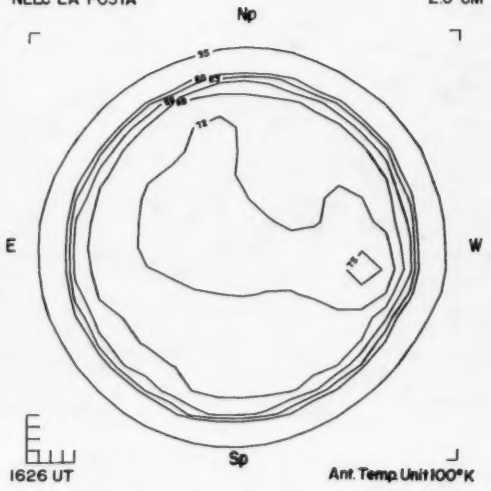
RAMEY AFB



BOULDER



NELC LA POSTA

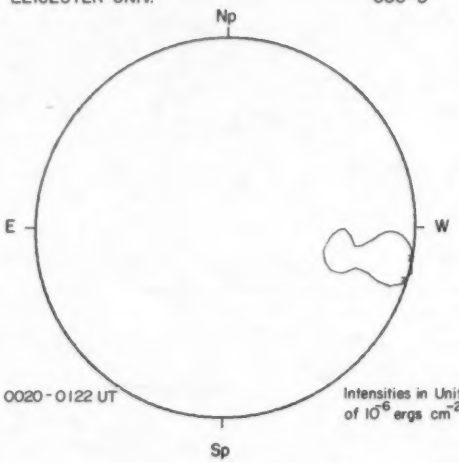


NELC LA POSTA

MARCH 18, 1975 (P=-24.84, B_o=-7.11, L_o=5.26)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

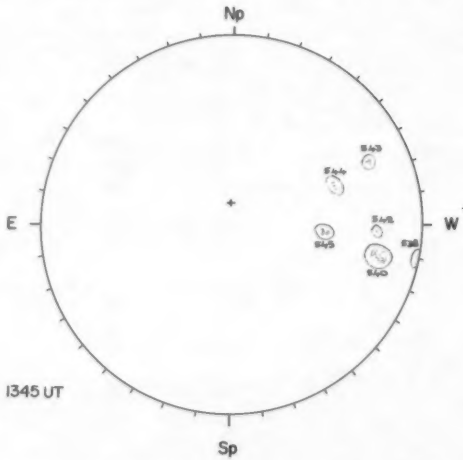


0020 - 0122 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

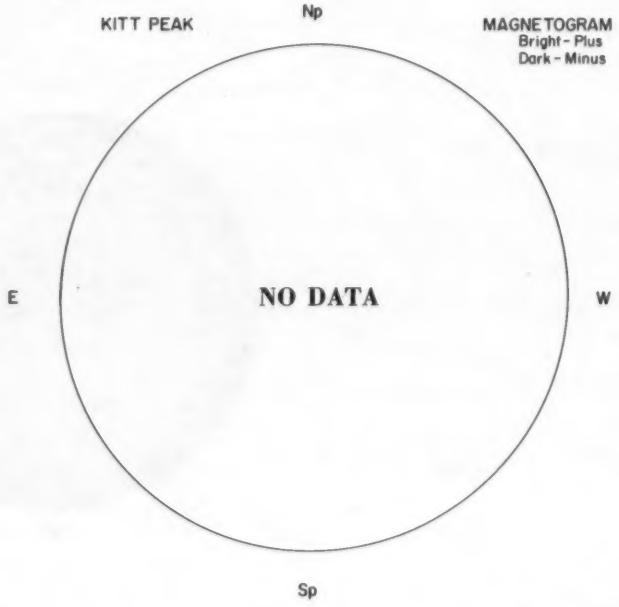


GOOD | S
40 - 0800 - 3.0

1345 UT

KITT PEAK

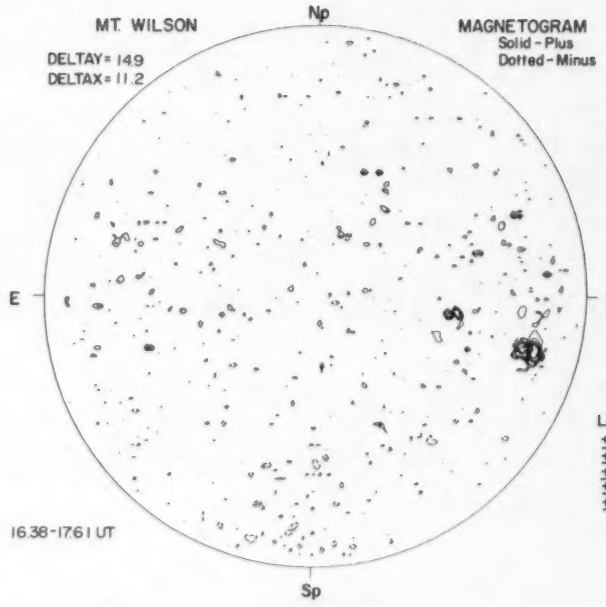
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

DELTAY= 14.9
DELTAX= 11.2

MAGNETOGRAM
Solid - Plus
Dotted - Minus

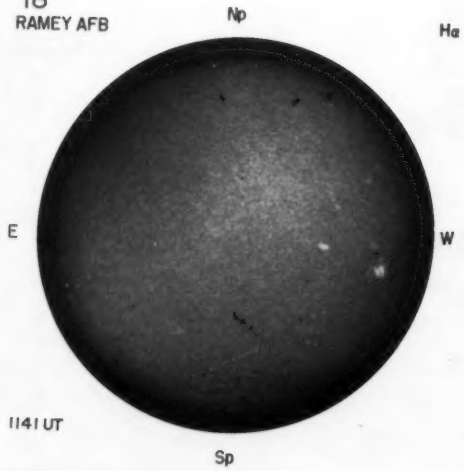


Levels
± 5
± 10
± 20
± 40
± 80

16.38 - 17.61 UT

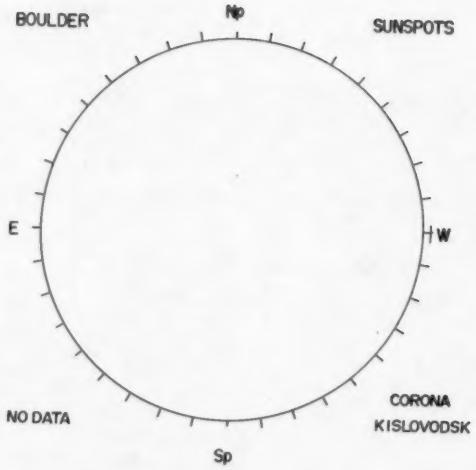
18

RAMEY AFB

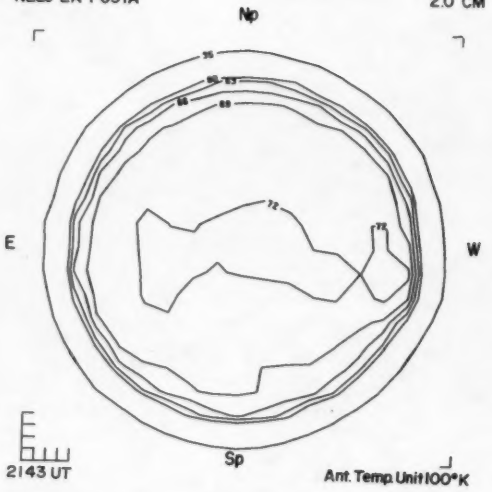


1141 UT

BOULDER

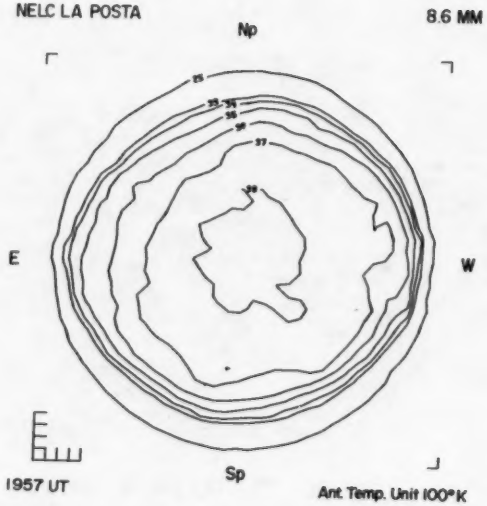


NELC LA POSTA



2143 UT

NELC LA POSTA

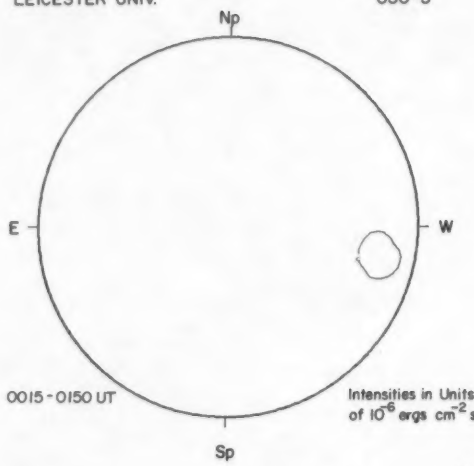


1957 UT

MARCH 19, 1975 (P=-24.98, B_o=-7.08, L_o=352.08)

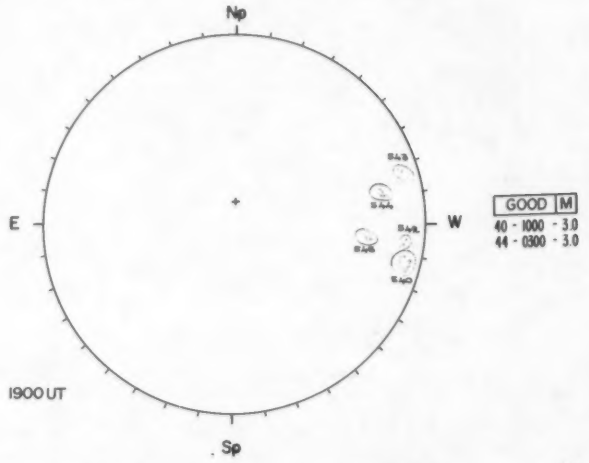
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



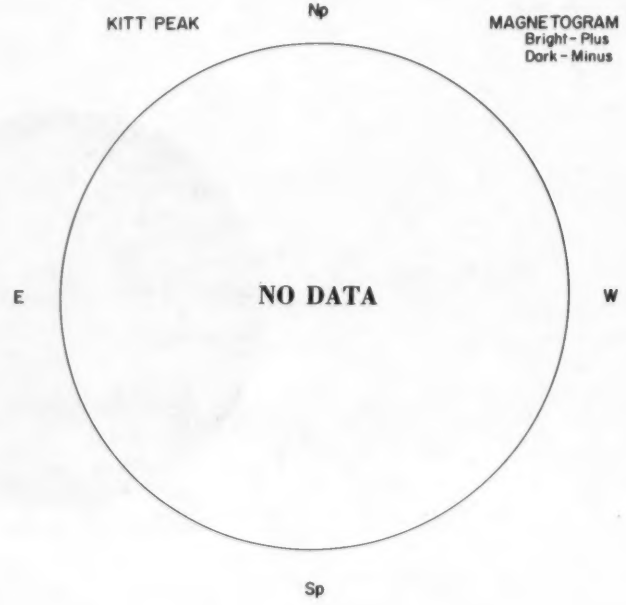
McMATH-HULBERT

CALCIUM REPORT



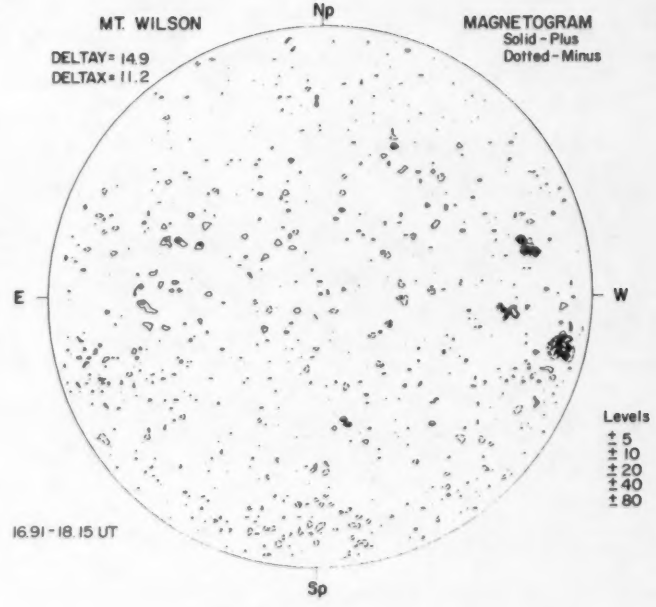
KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus



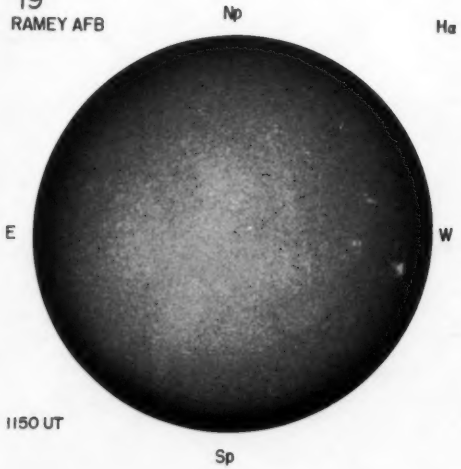
MT. WILSON

MAGNETOGRAM
Solid - Plus
Dotted - Minus



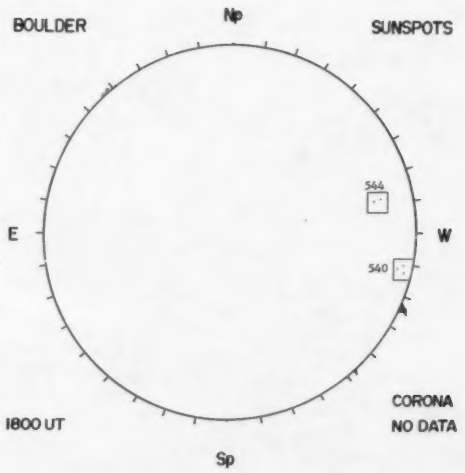
19

RAMEY AFB



1150 UT

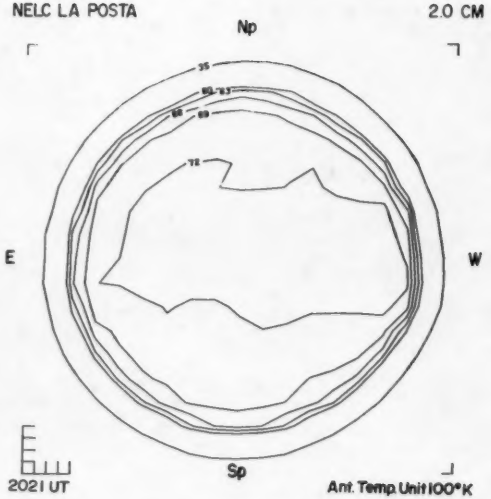
BOULDER



1800 UT

CORONA
NO DATA

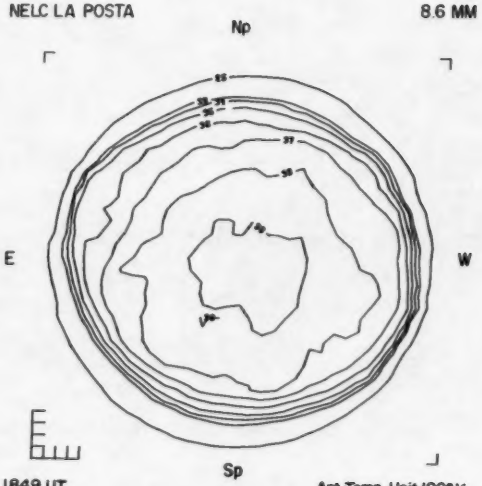
NELC LA POSTA



2021 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



1849 UT

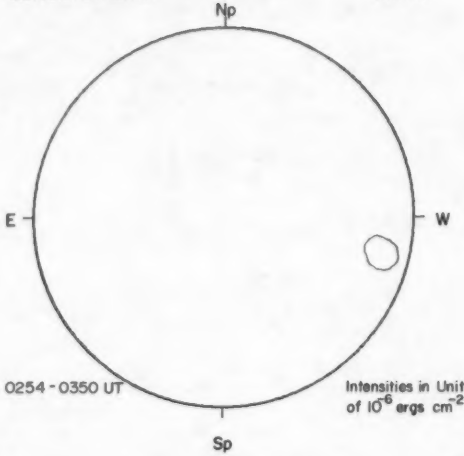
Ant. Temp. Unit 100°K

63
Mar 75

MARCH 20, 1975 (P=-25.12, B_o=-7.05, L_o=338.90)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

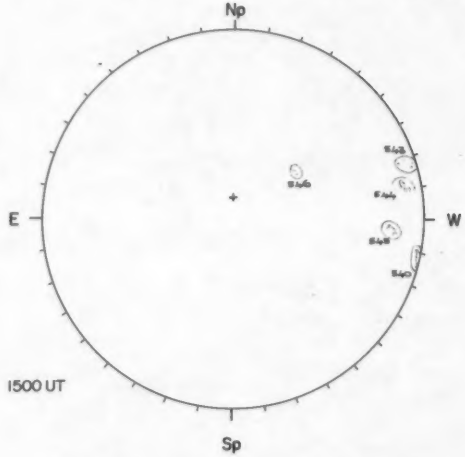


0254 - 0350 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

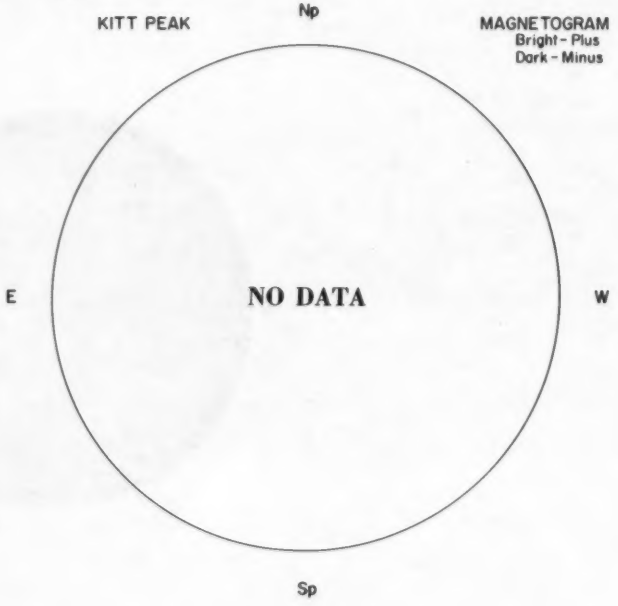
CALCIUM REPORT



1500 UT

GOOD	M
40 - 0900 - 2.5	
44 - 0400 - 2.5	

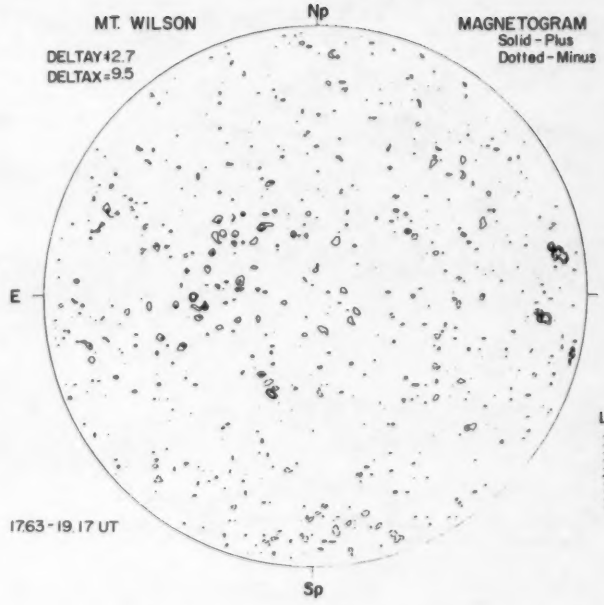
KITT PEAK



MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=2.7
DELTAX=9.5



MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

1763 - 1917 UT

20

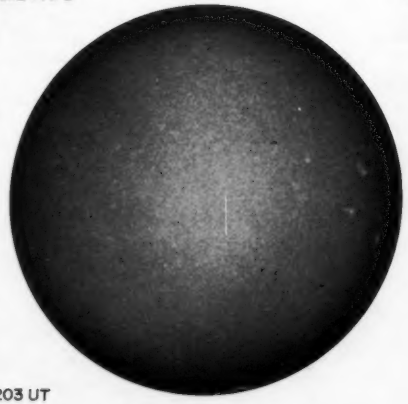
RAMEY AFB

Np

Hα

E

W



1203 UT

Sp

BOULDER

Np

SUNSPOTS

E

W

540

CORONA

NO DATA

1820 UT

Sp

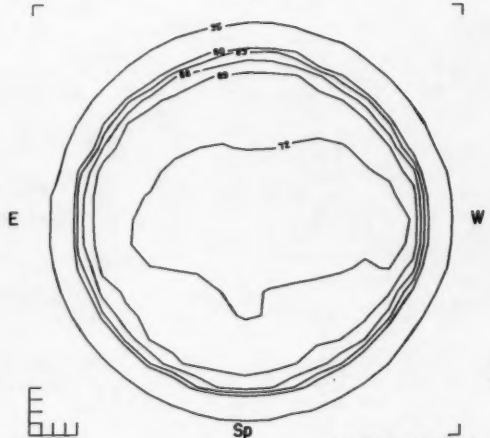
NELC LA POSTA

2.0 CM

Np

E

W



1934 UT

Sp

Ant. Temp. Unit 100°K

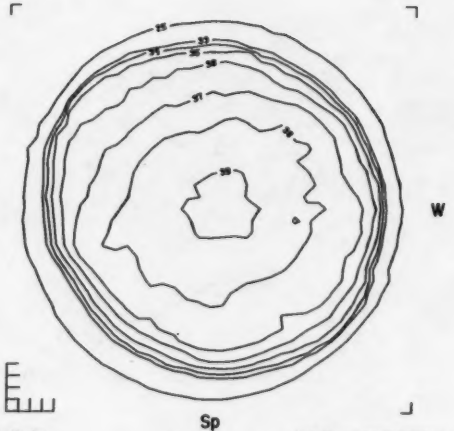
NELC LA POSTA

8.6 MM

Np

E

W



1749 UT

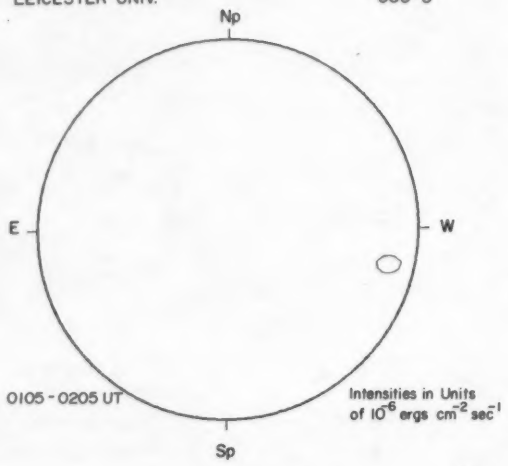
Sp

Ant. Temp. Unit 100°K

MARCH 21, 1975 (P=-25.25, B_o=-7.02, L_o=325.72)

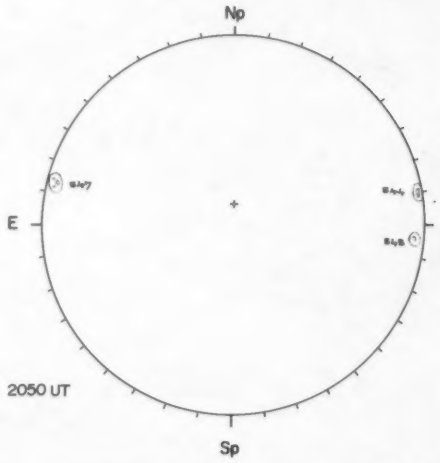
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



McMATH-HULBERT

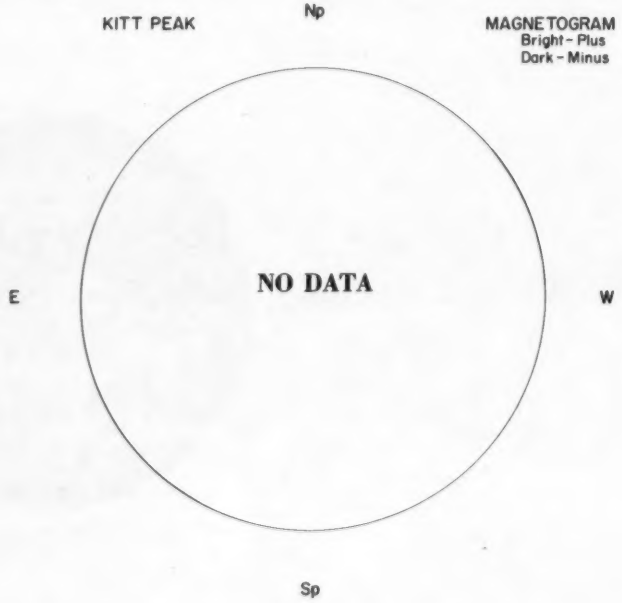
CALCIUM REPORT



POOR | S
44 - 0300 - 2.5

KITT PEAK

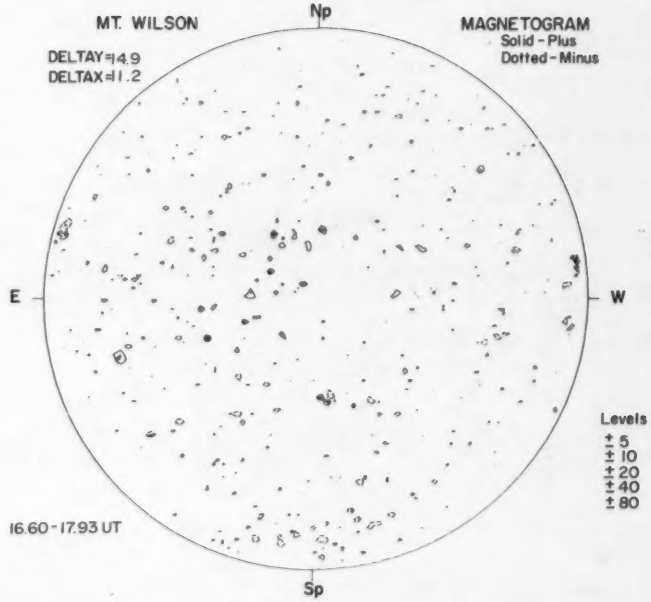
MAGNETOGRAM
Bright - Plus
Dark - Minus



MT. WILSON

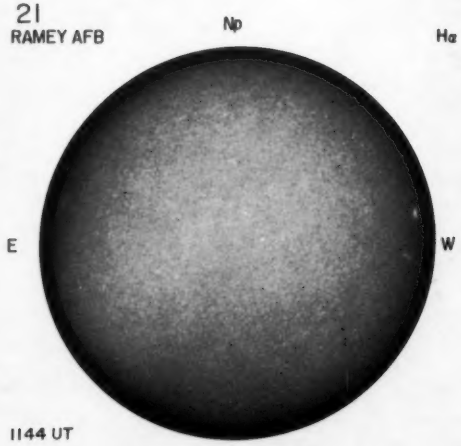
MAGNETOGRAM
Solid - Plus
Dotted - Minus

DELTAY=14.9
DELTAX=11.2



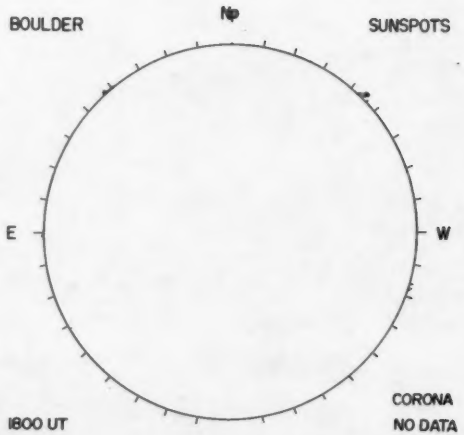
21

RAMEY AFB



1144 UT

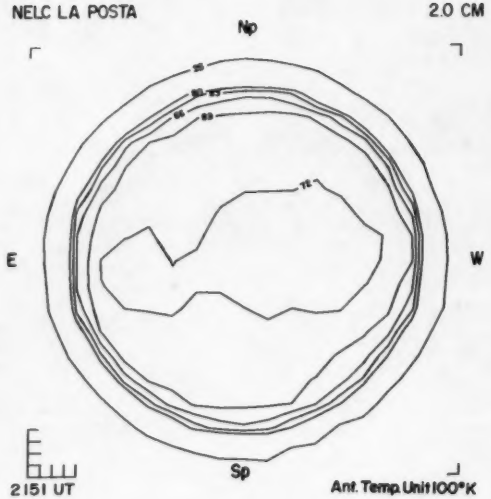
BOULDER



1800 UT

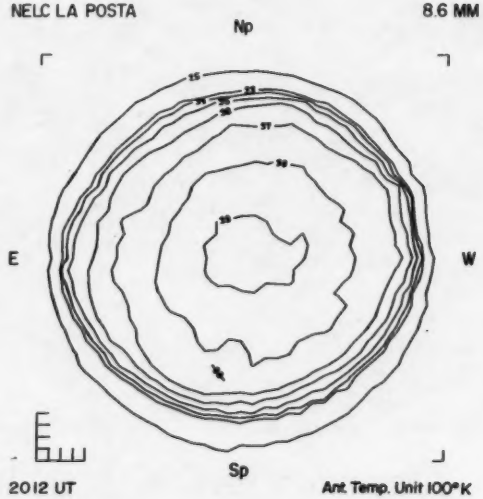
CORONA
NO DATA

NELC LA POSTA



2151 UT

NELC LA POSTA



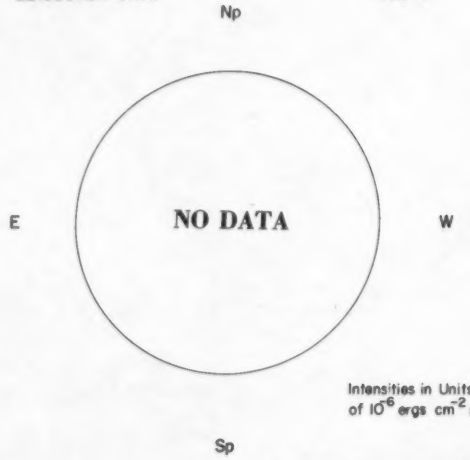
2012 UT

67
Mar 75

MARCH 22, 1975 (P=-25.37, B_o=-6.99, L_o=312.53)

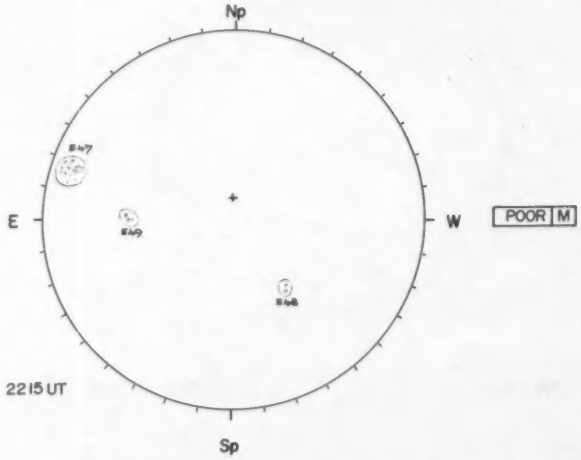
UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

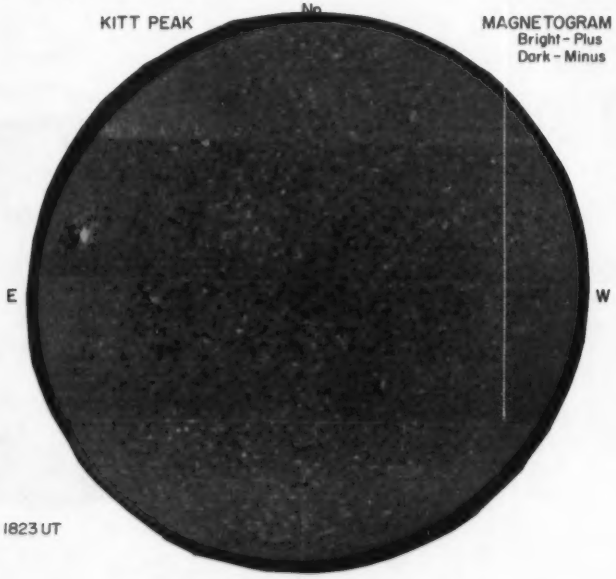


2215 UT

CALCIUM REPORT

POOR | M

KITT PEAK

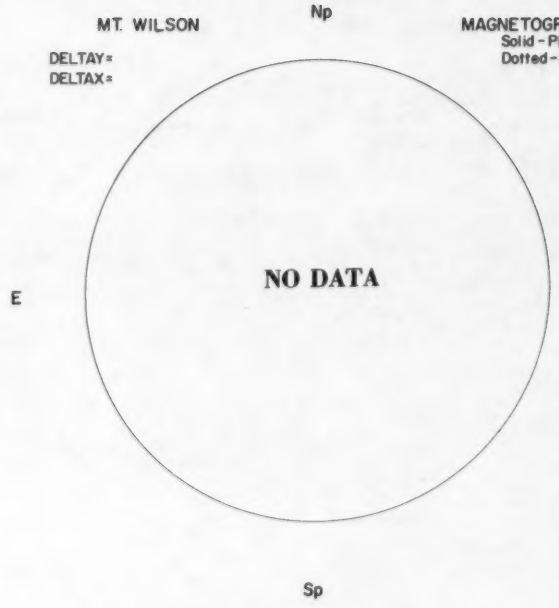


1823 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=



MAGNETOGRAM
Solid - Plus
Dotted - Minus

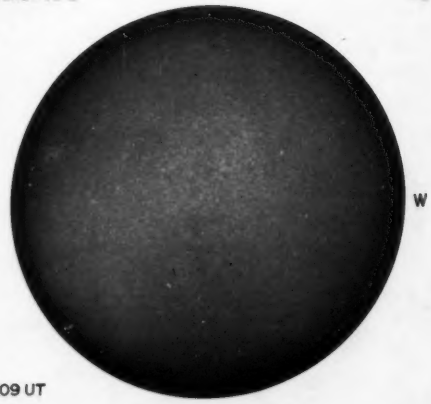
Levels
±5
±10
±20
±40
±80

22

RAMEY AFB

Np

Hα



E

W

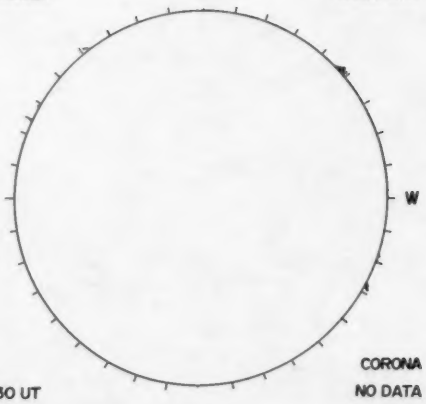
1209 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

1630 UT

Sp

CORONA

NO DATA

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

69

Mar 75

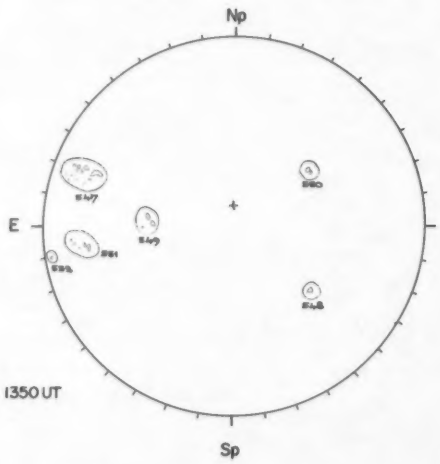
MARCH 23, 1975 (P=-25.48, B_o=-6.96, L_o=299.35)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

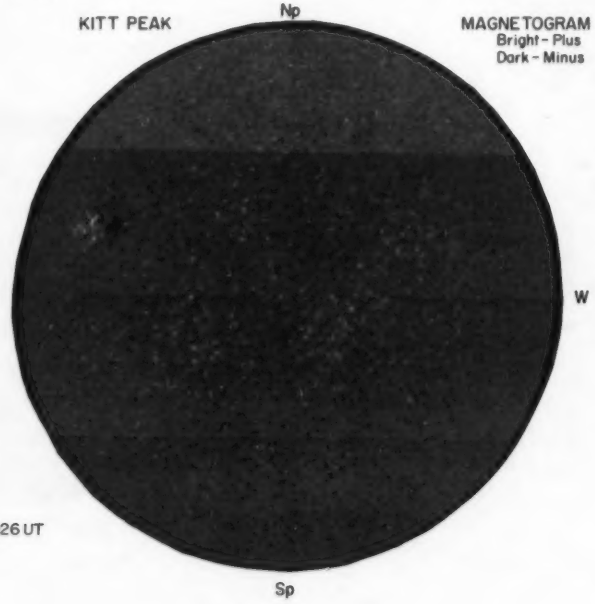


1350 UT

CALCIUM REPORT

FAIR D
47 - 0900 - 25

KITT PEAK

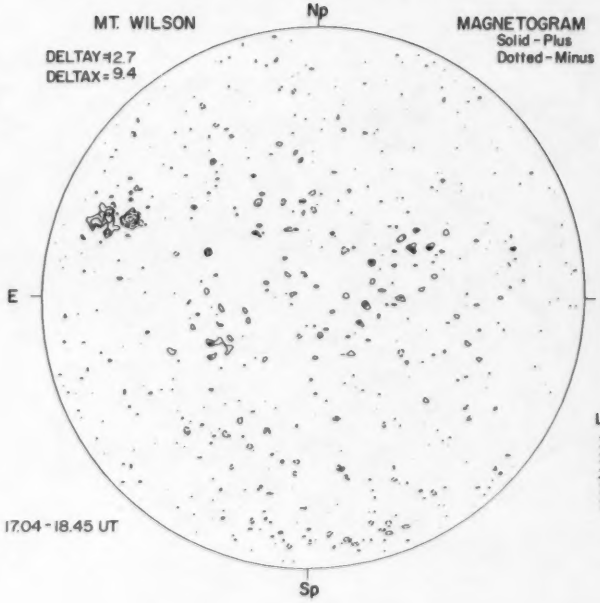


MAGNETOGRAM
Bright - Plus
Dark - Minus

2026 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4



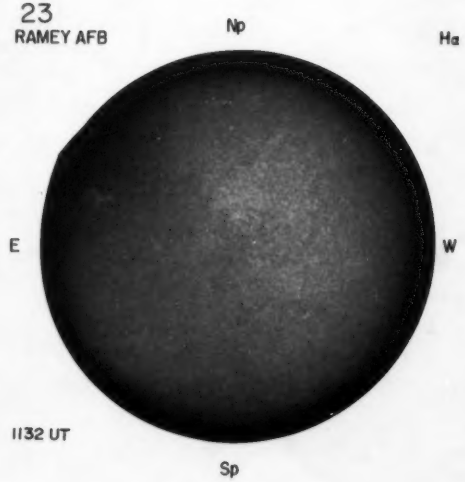
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
+ 5
+ 10
+ 20
+ 40
+ 80

17.04 - 18.45 UT

23

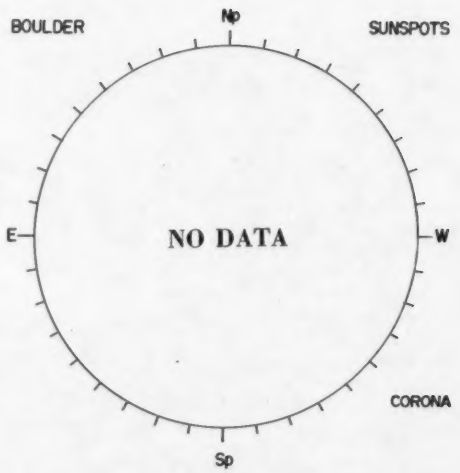
RAMEY AFB



1132 UT

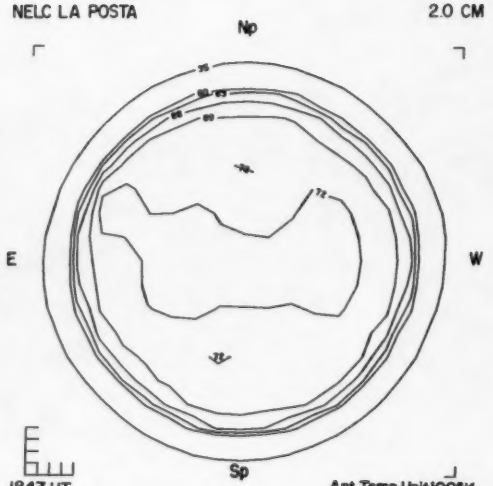
BOULDER

SUNSPOTS



NELC LA POSTA

2.0 CM

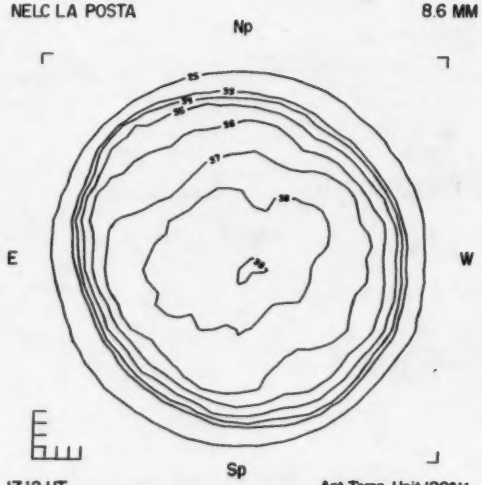


1847 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM



1712 UT

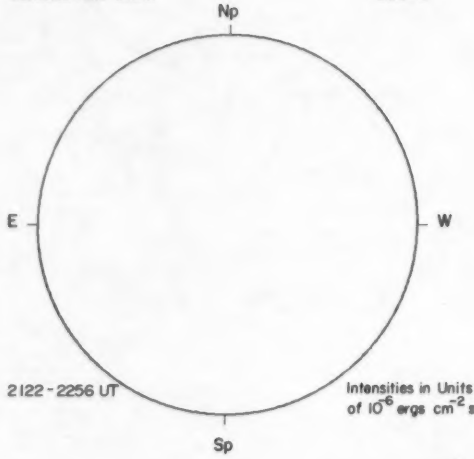
Ant. Temp. Unit 100°K

71
Mar 75

MARCH 24, 1975 (P=-25.59, B_o=-6.92, L_o=286.16)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

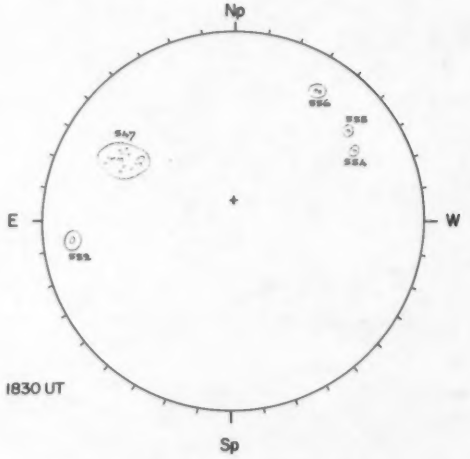


2122 - 2256 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

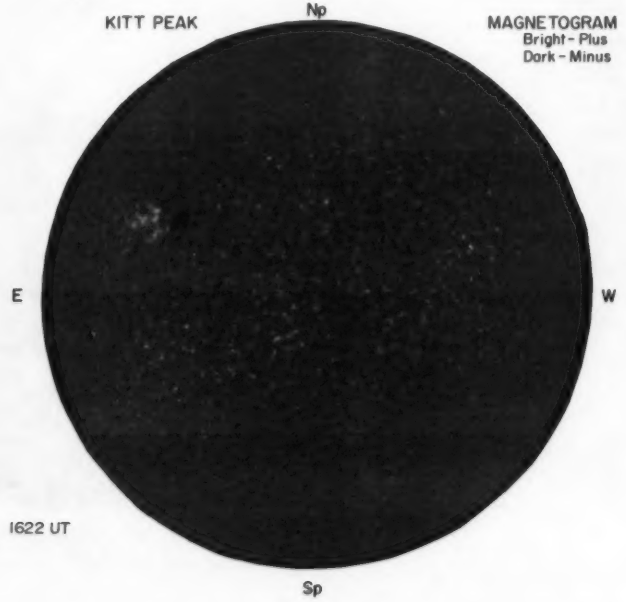


GOOD	S
47 - 0900 - 2.5	
56 - 0200 - 2.5	

1830 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

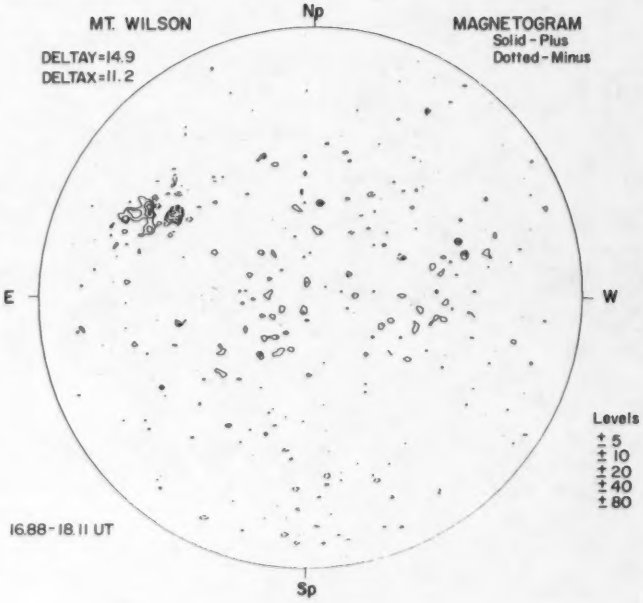


1622 UT

MT. WILSON

DELTAY=14.9
DELTAX=11.2

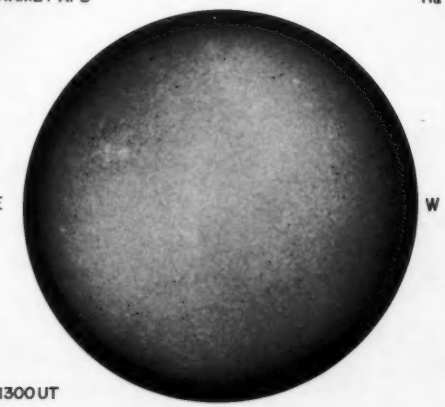
MAGNETOGRAM
Solid - Plus
Dotted - Minus



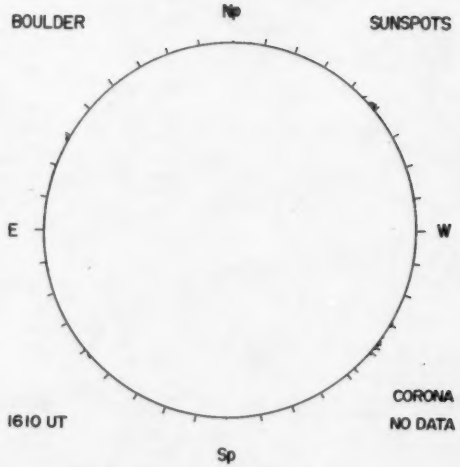
Levels
± 5
± 10
± 20
± 40
± 80

16.88 - 18.11 UT

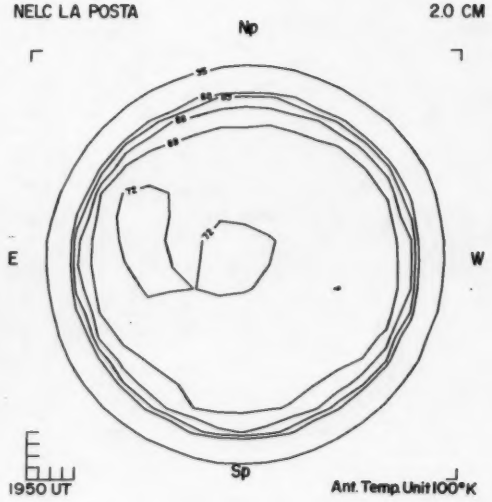
24
RAMEY AFB



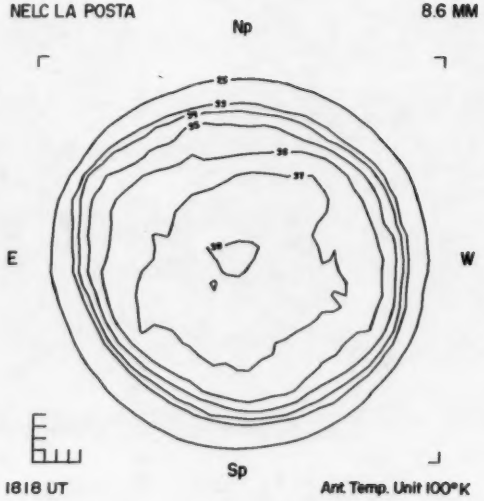
BOULDER



NELC LA POSTA



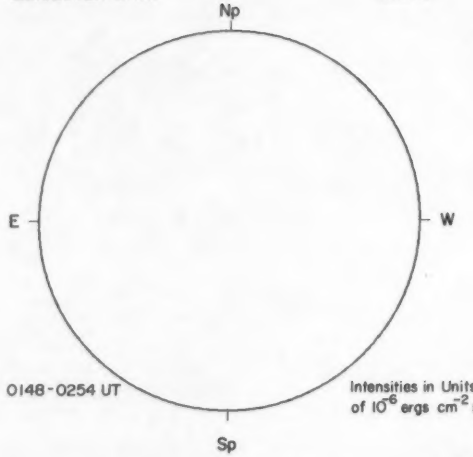
NELC LA POSTA



MARCH 25, 1975 (P = -25.69, B_o = -6.88, L_o = 272.97)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

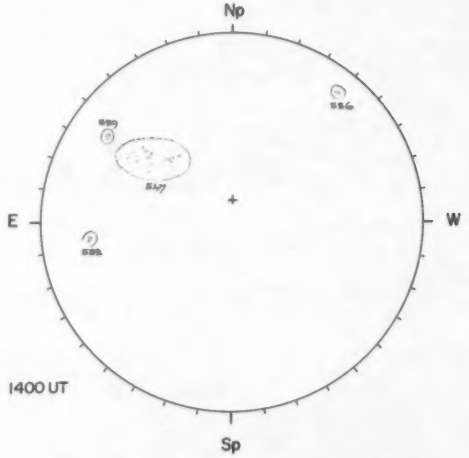


0148-0254 UT

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

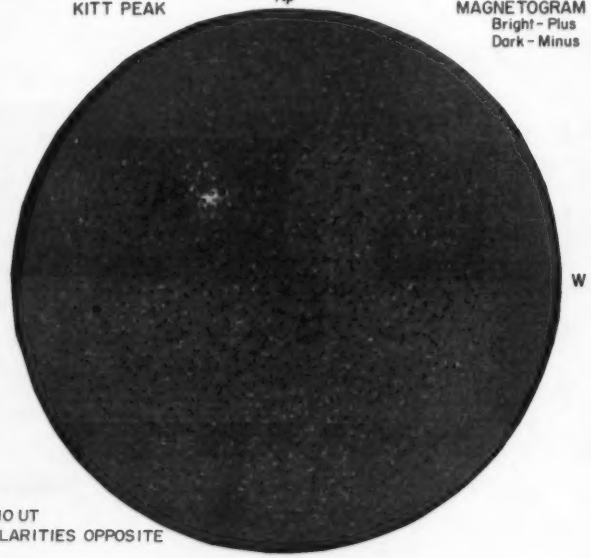


1400 UT

POOR | S
47 - 0800 - 2.5

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

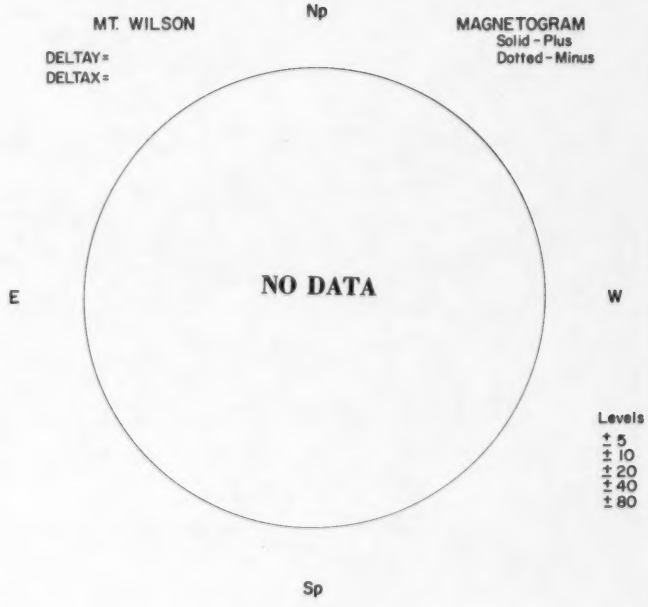


1510 UT
POLARITIES OPPOSITE

MT. WILSON

DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



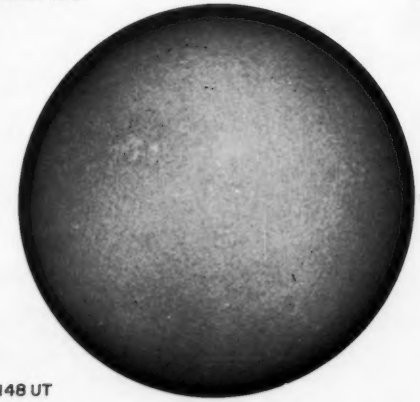
Levels
± 5
± 10
± 20
± 40
± 80

25

RAMEY AFB

Np

Hα



E

W

1148 UT

Sp

BOULDER

Np

SUNSPOTS

E

W

2015 UT

CORONA

KISLOVODSK

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

WEATHER

W

Sp

Ant. Temp. Unit 100°K

75

Mar 75

MARCH 26, 1975 (P = -25.78, B_o = -6.84, L_o = 259.79)

76 Mar 75

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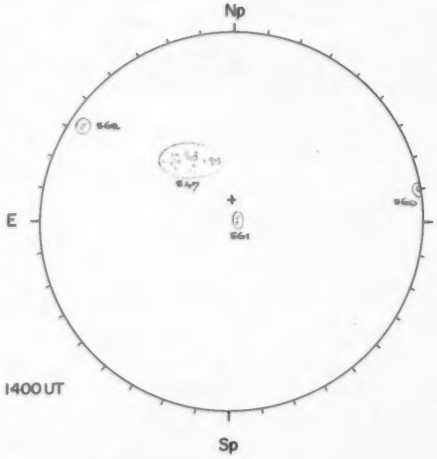
LEICESTER UNIV.

X-RAY
OSO-5

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT



CALCIUM REPORT

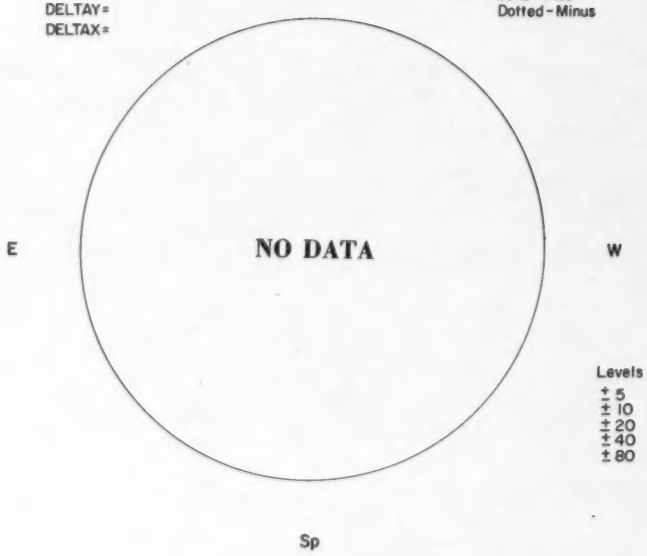
FAIR | M
60 - 0400 - 3.5

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=

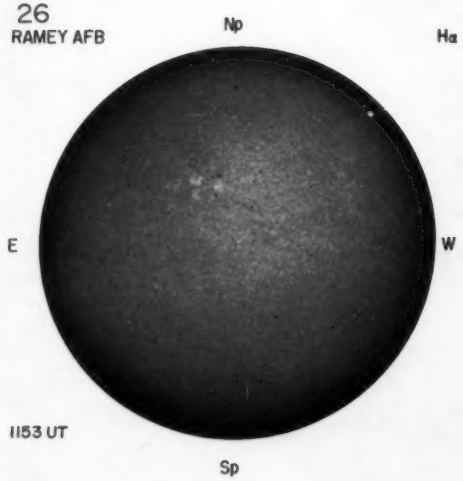


MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

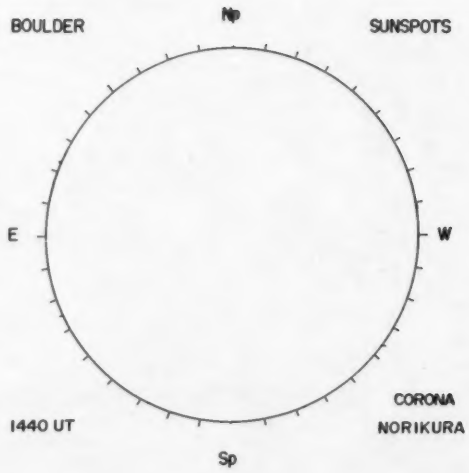
26

RAMEY AFB



1153 UT

BOULDER

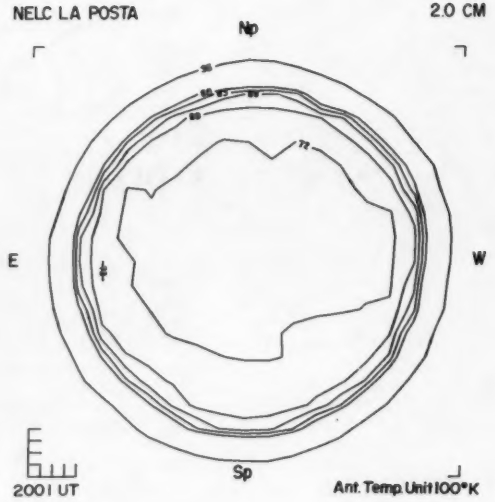


1440 UT

CORONA

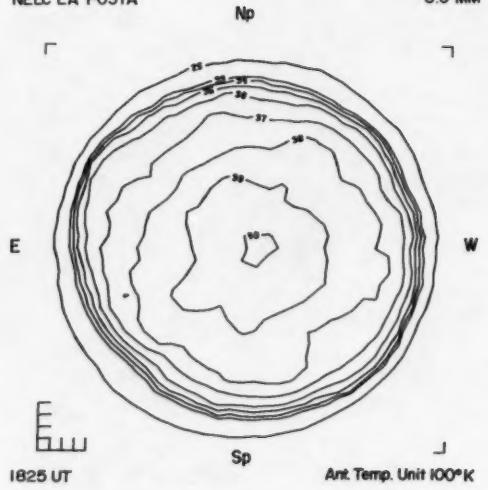
NORIKURA

NELC LA POSTA



2001 UT

NELC LA POSTA



1825 UT

77
Mar 75

MARCH 27, 1975 (P=-25.86, B_o=-6.80, L_o=246.60)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

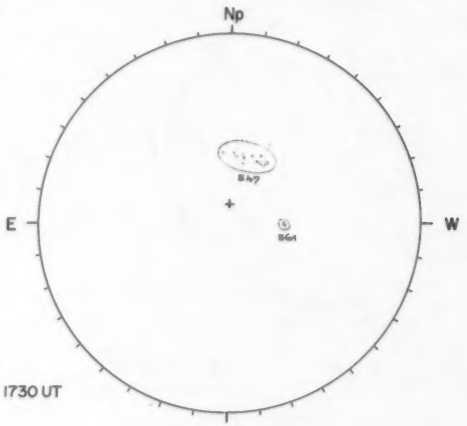
E NO DATA W

Sp

Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

CALCIUM REPORT

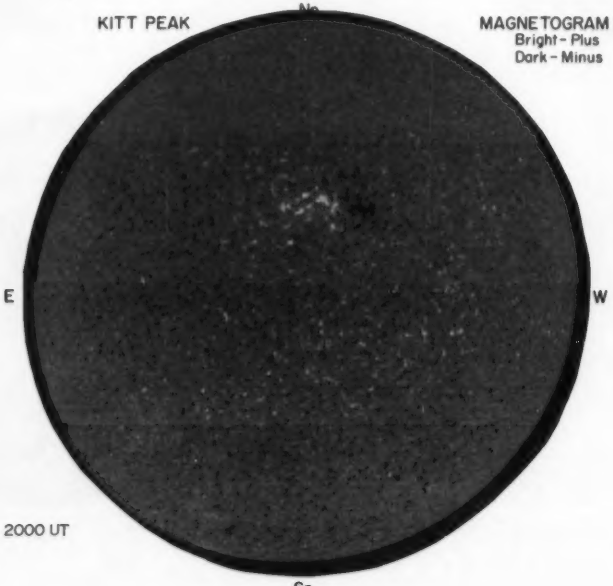


V POOR M

1730 UT

KITT PEAK

MAGNETOGRAM
Bright - Plus
Dark - Minus

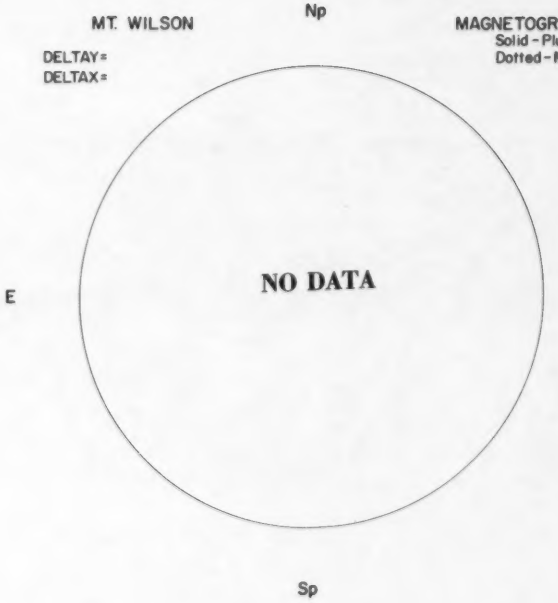


2000 UT

MT. WILSON

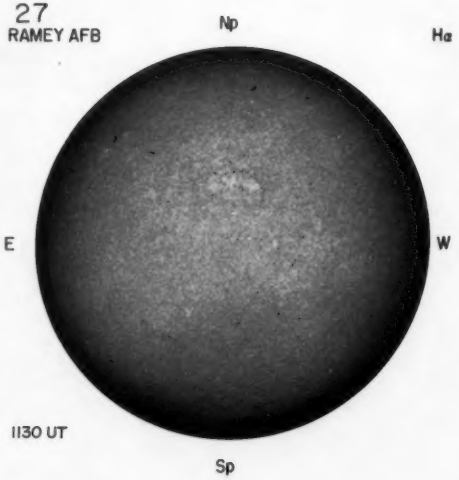
DELTAY=
DELTAX=

MAGNETOGRAM
Solid - Plus
Dotted - Minus



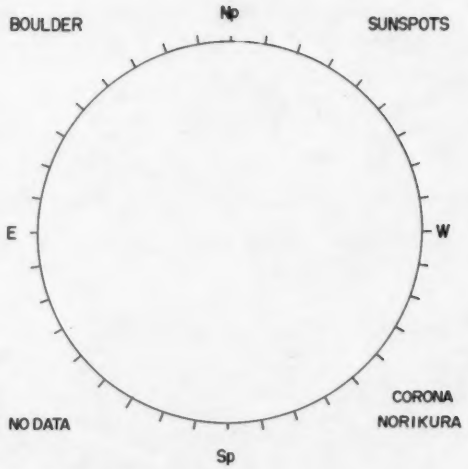
Levels
± 5
± 10
± 20
± 40
± 80

27
RAMEY AFB



1130 UT

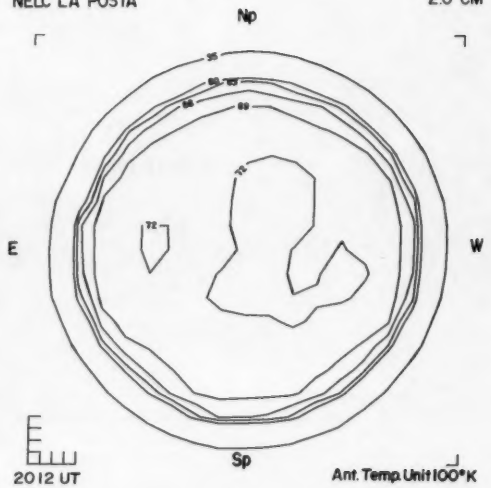
BOULDER



NO DATA

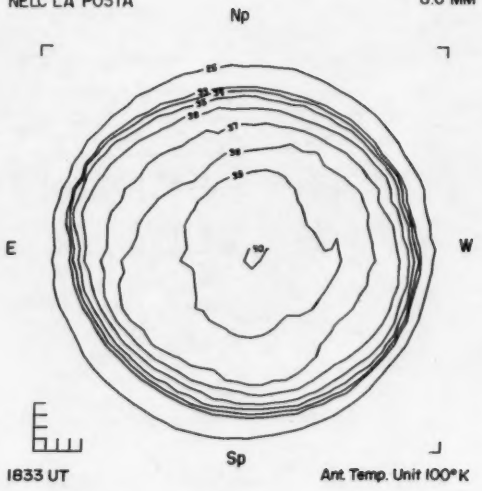
CORONA
NORIKURA

NELC LA POSTA



2012 UT

NELC LA POSTA



1833 UT

79
Mar 75

MARCH 28, 1975 (P=-25.94, B_o=-6.75, L_o=233.41)

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X-RAY
OSO-5

Np

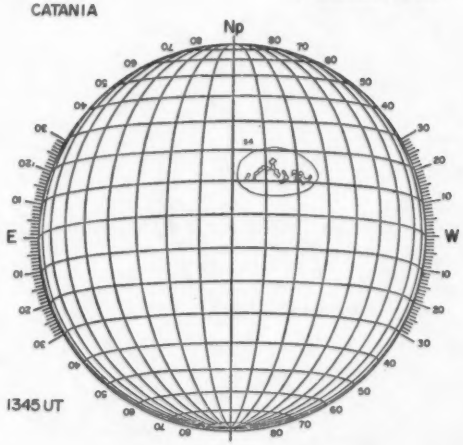
E NO DATA W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

CATANIA

CALCIUM REPORT



1345 UT

FAIR GD

KITT PEAK

Np

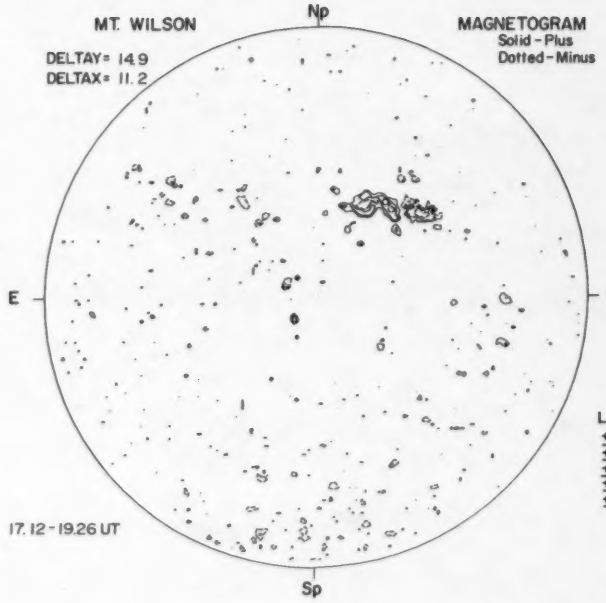
E NO DATA W

Sp

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY= 14.9
DELTAX= 11.2



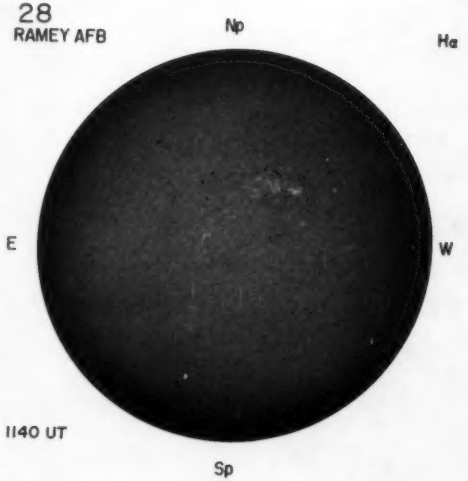
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

17.12 - 19.26 UT

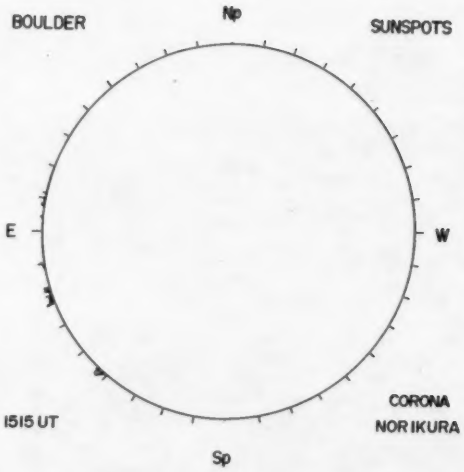
28

RAMEY AFB



1140 UT

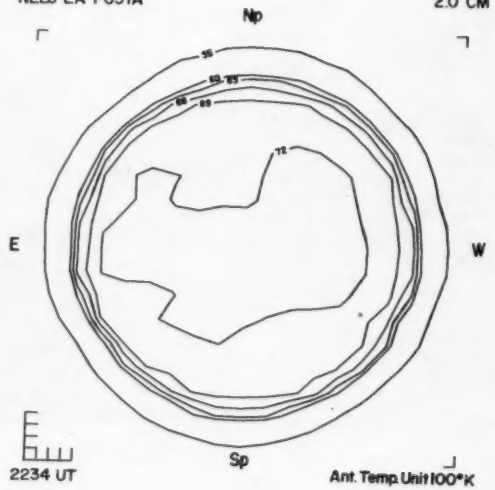
BOULDER



1515 UT

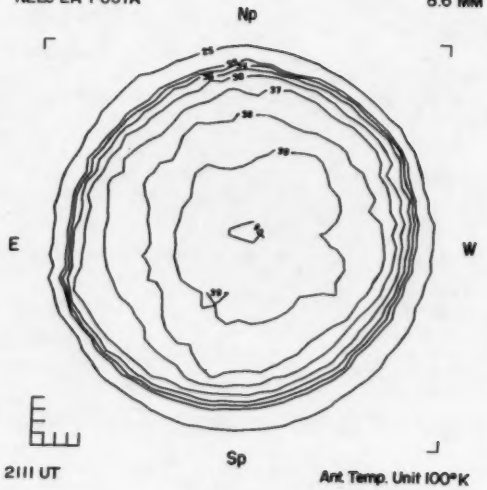
CORONA
NORIKURA

NELC LA POSTA



2234 UT

NELC LA POSTA



2111 UT

MARCH 29, 1975 (P=-26.01, B_o=-6.71, L_o=220.22)

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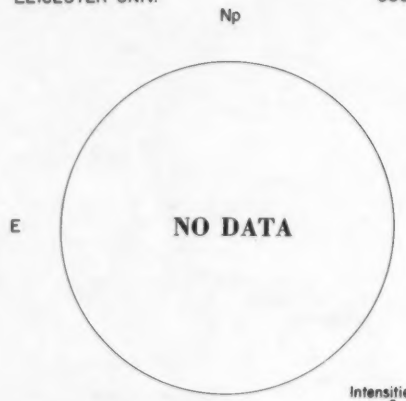
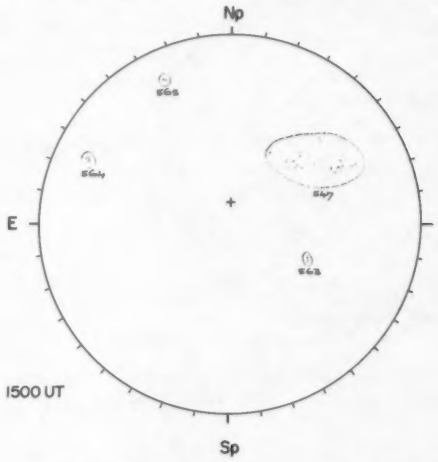
X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

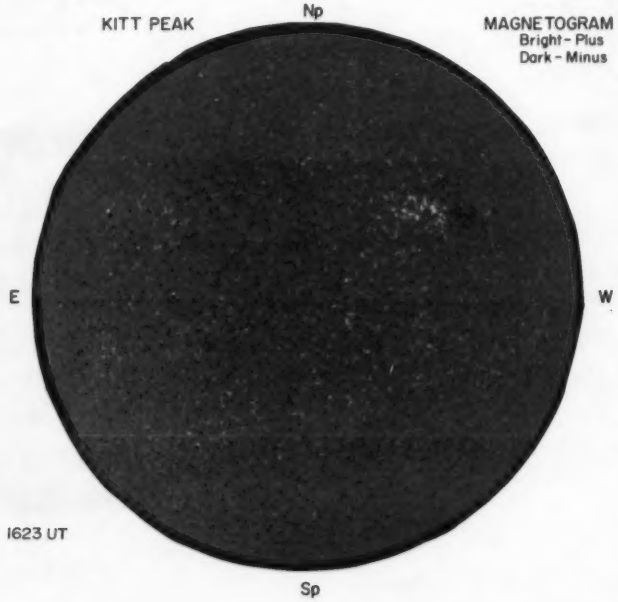


1500 UT

CALCIUM REPORT

V GOOD | M

KITT PEAK

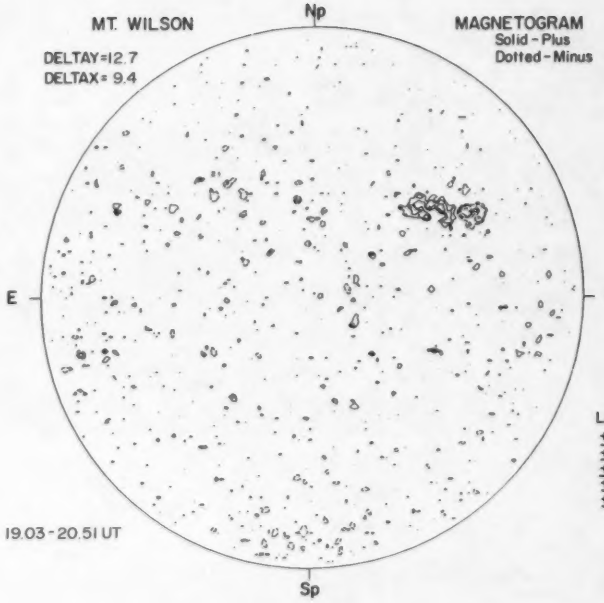


MAGNETOGRAM
Bright - Plus
Dark - Minus

1623 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4



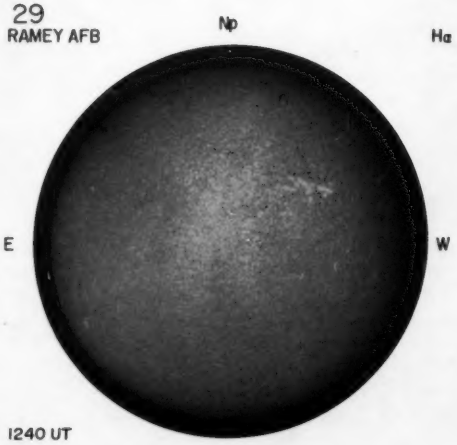
MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

19.03 - 20.51 UT

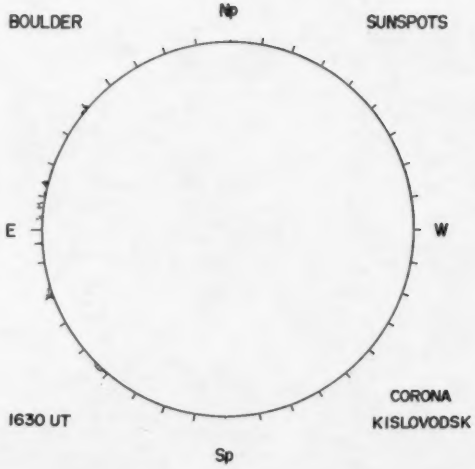
29

RAMEY AFB



1240 UT

BOULDER

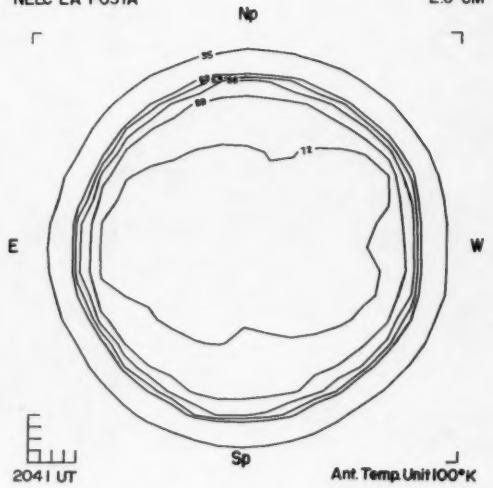


1630 UT

CORONA
KISLOVODSK

NELC LA POSTA

2.0 CM

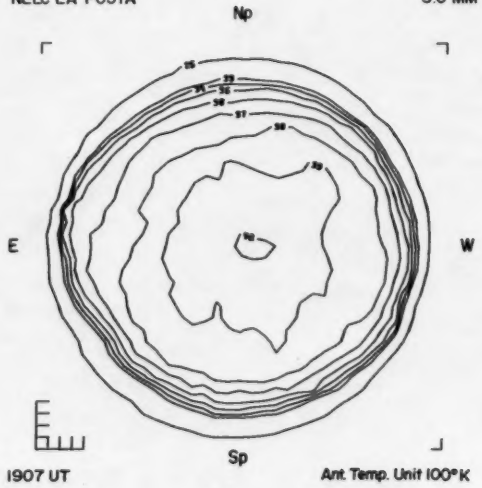


2041 UT

Ant. Temp. Unit 100°K

NELC LA POSTA

8.6 MM



1907 UT

Ant. Temp. Unit 100°K

MARCH 30, 1975 (P=-26.08, B_o=-6.66, L_o=207.03)

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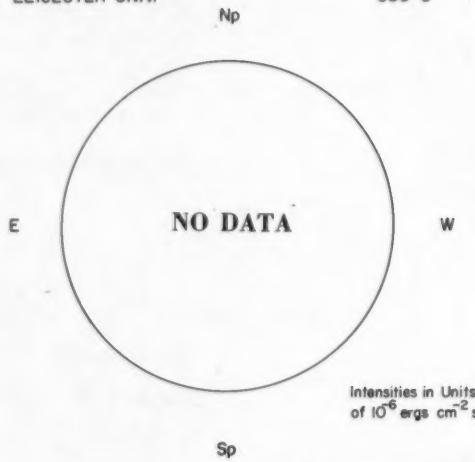
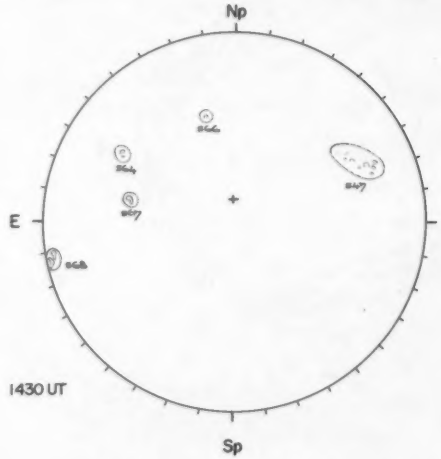
X-RAY
OSO-5



Intensities in Units of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

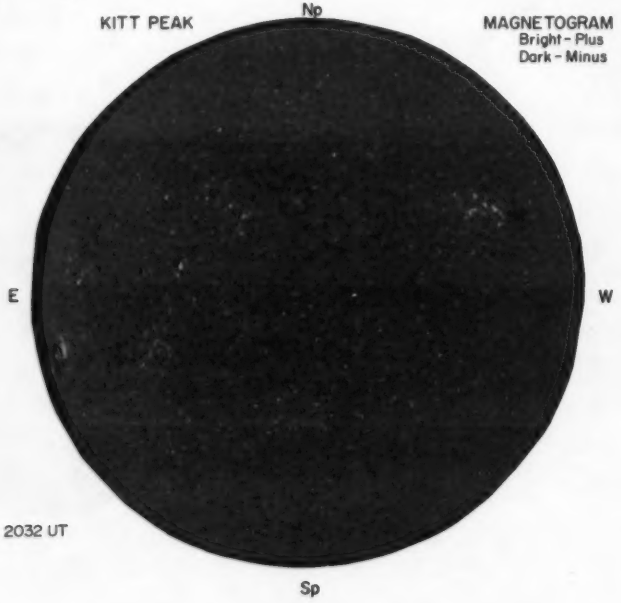


1430 UT

CALCIUM REPORT

POOR D

KITT PEAK

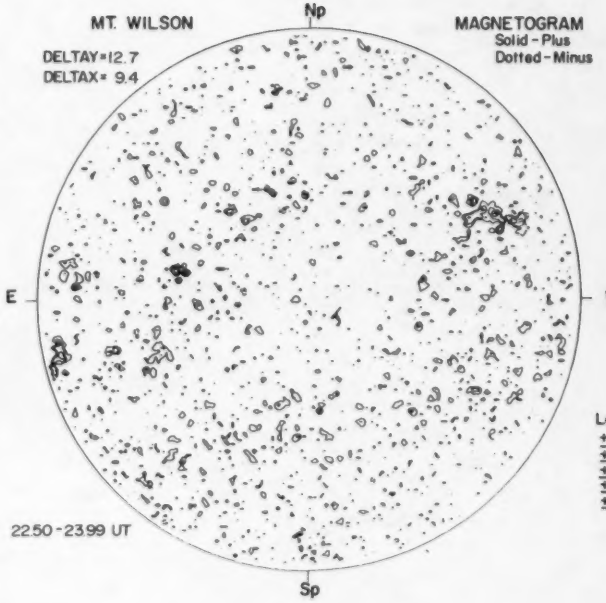


MAGNETOGRAM
Bright - Plus
Dark - Minus

2032 UT

MT. WILSON

DELTAY=12.7
DELTAX= 9.4

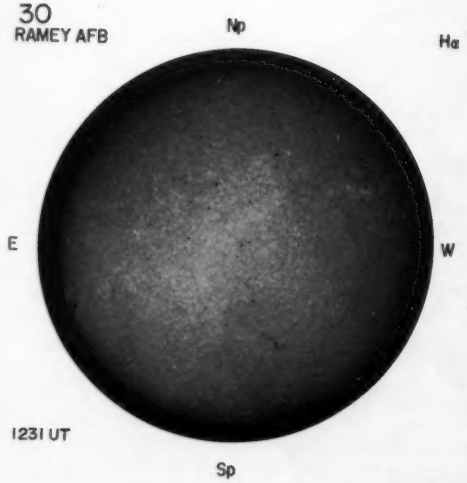


MAGNETOGRAM
Solid - Plus
Dotted - Minus

Levels
± 5
± 10
± 20
± 40
± 80

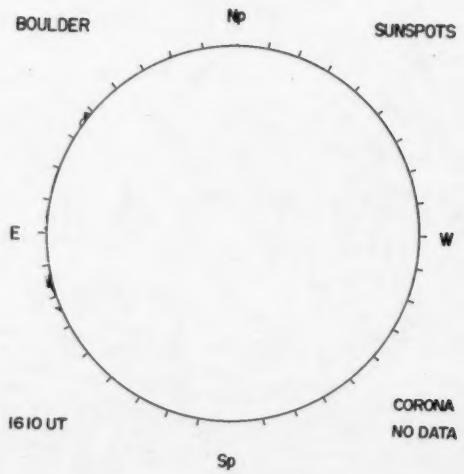
2250 - 2399 UT

30
RAMEY AFB



1231 UT

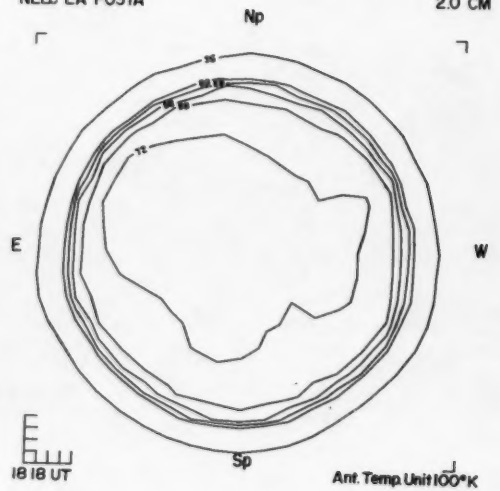
BOULDER



1610 UT

CORONA
NO DATA

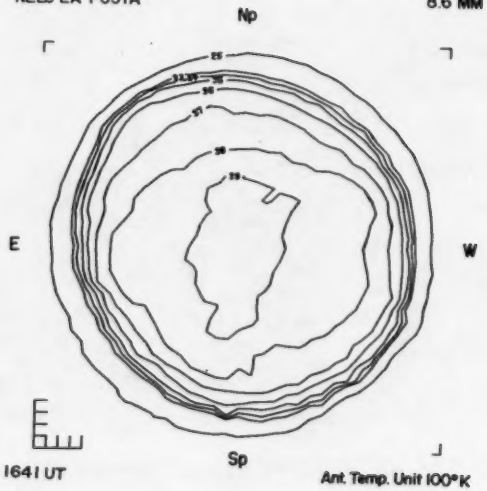
NELC LA POSTA



1818 UT

Ant. Temp. Unit 100°K

NELC LA POSTA



1641 UT

Ant. Temp. Unit 100°K

MARCH 31, 1975 (P=-26.13, B_o=-6.61, L_o=193.84)

UNIV. COLLEGE LONDON
LEICESTER UNIV.

X-RAY
OSO-5

Np

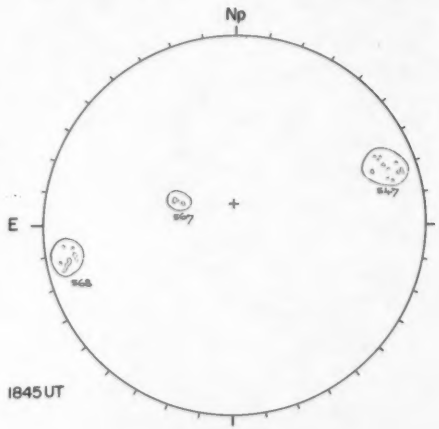
E — NO DATA — W

Sp

Intensities in Units
of 10^{-6} ergs cm^{-2} sec^{-1}

McMATH-HULBERT

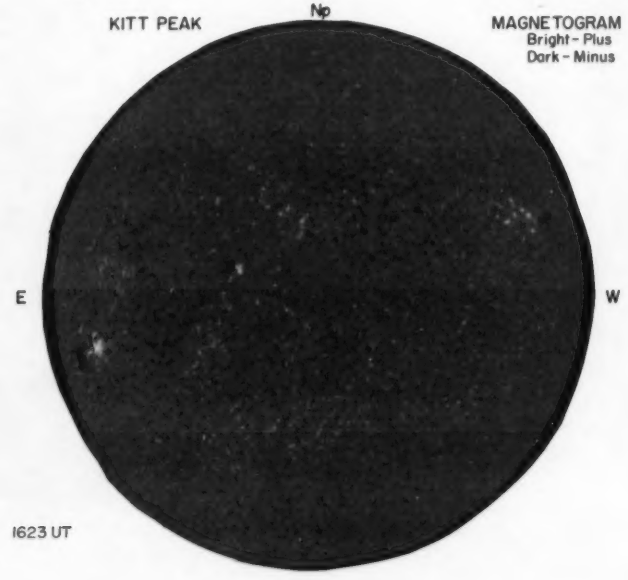
CALCIUM REPORT



POOR | D

1845 UT

KITT PEAK

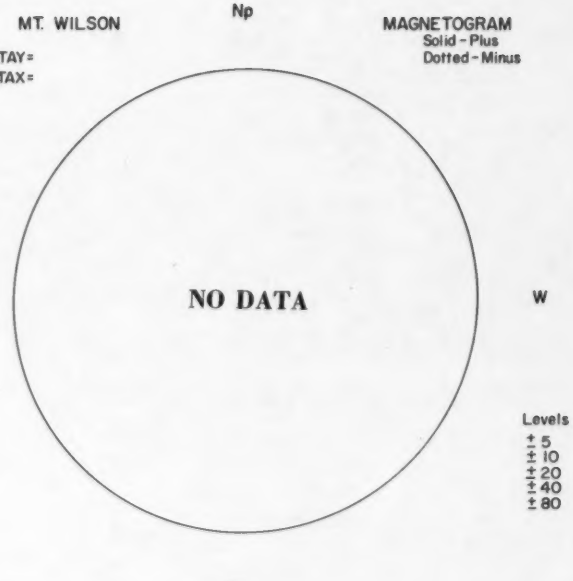


1623 UT

MAGNETOGRAM
Bright - Plus
Dark - Minus

MT. WILSON

DELTAY=
DELTAX=



MAGNETOGRAM
Solid - Plus
Dotted - Minus

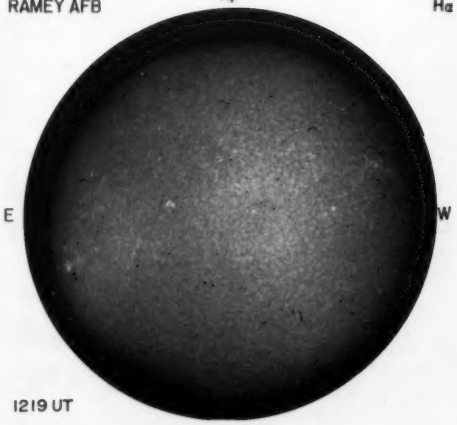
Levels
± 5
± 10
± 20
± 40
± 80

31

RAMEY AFB

Np

Hα



E

W

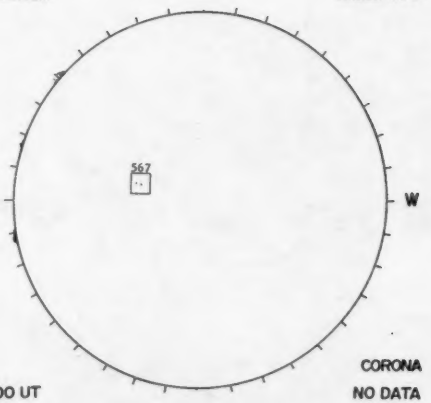
1219 UT

Sp

BOULDER

Np

SUNSPOTS



E

W

CORONA

NO DATA

1400 UT

Sp

NELC LA POSTA

Np

2.0 CM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

NELC LA POSTA

Np

8.6 MM

NO DATA

E

EQUIPMENT

W

Sp

Ant. Temp. Unit 100°K

87

Mar 75

REGIONS OF SOLAR ACTIVITY

MARCH 1975

MCMATH REGION 13507 CMP DATE 1.0

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	2	26	13507	N10 E32	228	300	1.5							
75	2	27	13507	N11 E19	227	100	1.5							
75	2	28	13507	N11 E05	228	100	1.0							

MCMATH REGION 13524 CMP DATE 1.6

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	3	4	13524	S17 W40	221	100	1.0							

MCMATH REGION 13525 CMP DATE 2.0

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	3	4	13525	S33 W34	215	100	1.0							

MCMATH REGION 13508 CMP DATE 2.7

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	2	25	13508	N17 E54	206	100	1.0							

MCMATH REGION 13518 CMP DATE 5.5

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	3	1	13518	N07 E52	169	200	1.5							

MCMATH REGION 13519 CMP DATE 5.8

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	3	1	13519	S08 E56	165	200	1.5							

MCMATH REGION 13512 CMP DATE 5.9

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	2	27	13512	N11 E83	163	100	1.0							

MCMATH REGION 13515 CMP DATE 6.7 RETURN OF REGION 13463 ROTATION 2

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	2	28	13515	S12 E85	148	400	1.0							
75	3	1	13515	S12 E72	149	500	1.0							
75	3	2	13515	S12 E57	147	500	1.5							
75	3	3	13515	S12 E43	150	600	1.0							
75	3	4	13515	S11 E28	153	300	1.0							
75	3	5	13515	S11 E16	152	400	1.0							
75	3	8	13515	S11 W26	153	300	1.0							
75	3	9	13515	S11 W35	150	300	1.0							

MCMATH REGION 13520 CMP DATE 6.9

				CALCIUM PLAGE DATA				SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	NW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT CLASS
75	3	1	13520	N10 E70	151	200	1.0							
75	3	2	13520	N10 E54	150	100	1.5							

REGIONS OF SOLAR ACTIVITY

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MCMATH REGION 13521 CMP DATE 8.5 RETURN OF REGION 13470 ROTATION 2

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	2	13521	N05 E80	124	300	1.5								
75	3	3	13521	N05 E66	127	600	2.0								
75	3	4	13521	N06 E52	129	500	2.0								
75	3	5	13521	N07 E39	129	500	2.0								
75	3	8	13521	N06 W02	129	300	2.0								
75	3	9	13521	N06 W13	128	700	2.0								
75	3	13	13521	N05 W65	127	300	1.0								

MCMATH REGION 13522 CMP DATE 9.0

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	2	13522	S03 E88	116	300	1.0								
75	3	3	13522	S03 E76	117	800	2.5								
75	3	4	13522	S03 E60	121	500	3.0								
75	3	5	13522	S03 E47	121	600	2.5								
75	3	8	13522	S03 E05	122	400	2.0								
75	3	9	13522	S03 W08	123	400	2.0								
75	3	13	13522	S03 W62	124	300	1.0								

MCMATH REGION 13532 CMP DATE 9.9

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	8	13532	S14 E17	110	300	2.5		S13 E15				B	30	7 CRO
75	3	9	13532	S13 E05	110	600	2.5		S12 E05				R	20	9 BXO
75	3	10							S12 W08				R	30	9 CRO
75	3	11						19556	S12 W29	113	(BP)	2	R	40	10 DRI
75	3								S12 W08				R	30	9 CRO
75	3	12						19556	S12 W40	114	(B)	2	B	40	5 CRO
75	3	13	13532	S14 W50	112	1000	4.0		S13 W51				B	80	13 DRI
75	3	14							S13 W63				B	60	19 DRI
75	3	15	13532	S13 W78	114	1000	3.5	19556	S12 W78	113	(BP)	2	B	40	4 CRO
75	3	16	13532	S13 W89	112	200	1.0								

MCMATH REGION 13526 CMP DATE 10.5 RETURN OF REGION 13471 ROTATION 5

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	4	13526	N19 E82	99	700	1.0								
75	3	5	13526	N19 E67	101	400	1.0								
75	3	8	13526	N19 E27	100	200	1.0								
75	3	9	13526	N20 E13	102	300	1.0								
75	3	13	13526	N20 W39	101	200	1.5								
75	3	15	13526	N20 W65	101	200	1.0								

MCMATH REGION 13535 CMP DATE 10.5

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	13	13535	N02 W40	102	100	1.0								

MCMATH REGION 13531 CMP DATE 10.6

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	8	13531	N53 E26	101	100	1.0								

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MCMATH REGION 13537 CMP DATE 11.0

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	15	13537	S46 W60	96	100	1.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS

MCMATH REGION 13527 CMP DATE 11.5

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	5	13527	N09 E84	84	500	1.5
75	3	5					
75	3	7					
75	3	8	13527	N09 E40	87	300	1.5
75	3	9	13527	N08 E28	87	500	1.5
75	3	10					
75	3	13	13527	N08 W27	89	400	1.5
75	3	15	13527	N07 W54	90	200	2.0
75	3	16	13527	N07 W66	89	200	1.0
75	3	17	13527	N07 W77	86	200	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
	N07 E75				B	20	1	AXX
	N07 E63				B	10	1	AXX
	N08 E52				R	10	1	AXX
	N06 E35				B	20	1	HRX
	N08 E25				R	10	1	HRX
	N08 E14				R	0	1	AXX

MCMATH REGION 13538 CMP DATE 11.9

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	15	13538	S09 W50	86	300	3.5
75	3	16	13538	S09 W63	86	300	3.5
75	3	17	13538	S10 W76	85	400	3.0
75	3	18	13538	S10 W90	86	200	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
19558	S09 W68	85	BF		B	50	5	CSO
19558	S09 W77	85	BF)	2	B	60	2	CSO

MCMATH REGION 13539 CMP DATE 12.3

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	15	13539	N27 W43	79	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS

MCMATH REGION 13536 CMP DATE 12.8

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	13	13536	N37 W10	72	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS

MCMATH REGION 13540 CMP DATE 14.5

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	15	13540	S13 W14	50	300	3.5
75	3	16	13540	S13 W28	51	600	3.0
75	3	17	13540	S13 W41	50	800	3.0
75	3	18	13540	S13 W54	50	800	3.0
75	3	19	13540	S13 W70	51	1000	3.0
75	3	20	13540	S13 W83	53	900	2.5

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
19557	S13 W15	51	(BP)	3	B	40	21	CRI
19557	S13 W34	52	BF		B	150	23	DSO
19557	S13 W43	51	(BF)	3	B	140	11	DSO
19557	S14 W55	51	(BF)	3	R	200	13	DAI
19557	S13 W70	53	(BP)	2	B	30	5	BXO
19557	S13 W80	51	(AP)	2	B	20	2	BXX

MCMATH REGION 13542 CMP DATE 14.5

CALCIUM PLAGE DATA

YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT
75	3	17	13542	S08 W40	49	100	1.5
75	3	18	13542	S08 W51	47	100	1.5
75	3	19	13542	S08 W67	48	100	1.0

SUNSPOT DATA

MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS

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MARCH 1975

MCMATH REGION 13533 CMP DATE 14.9

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	8	13533	S07 E90	37	100	1.0									
75	3	9	13533	S11 E70	45	500	1.0									

MCMATH REGION 13543 CMP DATE 14.9

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	18	13543	N15 W48	44	100	2.0									
75	3	19	13543	N14 W64	45	100	1.0									
75	3	20	13543	N14 W74	44	200	1.0									

MCMATH REGION 13534 CMP DATE 15.6

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	9	13534	N05 E80	35	300	1.5									

MCMATH REGION 13544 CMP DATE 16.0

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	18	13544	N07 W34	30	200	1.5									
75	3	19	13544	N06 W51	32	300	3.0	19559	N07 W50	33	(BP)	2	B	10	2	BXO
75	3	20	13544	N07 W64	34	400	2.5									
75	3	21	13544	N07 W80	33	300	2.5		N07 W74				R	20	2	BXO

MCMATH REGION 13545 CMP DATE 16.4

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	17	13545	S09 W15	24	200	1.5									
75	3	18	13545	S09 W30	26	200	2.0		S07 W30				R	0	1	AXX
75	3	19	13545	S09 W45	26	200	2.0									
75	3	20	13545	S08 W57	27	400	1.5									
75	3	21	13545	S07 W74	27	200	1.5									

MCMATH REGION 13541 CMP DATE 17.6

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	15	13541	S24 E27	9	100	1.0									

MCMATH REGION 13546 CMP DATE 19.1

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	20	13546	N08 W20	350	100	1.0									

MCMATH REGION 13560 CMP DATE 20.0

				CALCIUM PLAGE DATA				SUNSPOT DATA								
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT	CLASS
75	3	26	13560	N10 W87	338	400	3.5									

REGIONS OF SOLAR ACTIVITY

MARCH 1975

MCMATH REGION 13548 CMP DATE 21.5

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	22	13548	S27 W19	318	100	1.0								
75	3	23	13548	S27 W27	318	100	1.0								

MCMATH REGION 13554 CMP DATE 21.5

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	24	13554	N16 W43	318	100	1.0								

MCMATH REGION 13555 CMP DATE 21.7

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	24	13555	N23 W41	316	100	1.5								

MCMATH REGION 13550 CMP DATE 21.8

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	23	13550	N10 W24	315	200	1.5								

MCMATH REGION 13556 CMP DATE 22.1

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	24	13556	N37 W35	310	200	2.5								
75	3	25	13556	N38 W45	310	100	1.0								

MCMATH REGION 13549 CMP DATE 25.5

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	22	13549	S05 E34	265	100	1.0								
75	3	23	13549	S05 E26	265	200	1.5								

MCMATH REGION 13561 CMP DATE 26.4

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	26	13561	S07 W02	253	100	1.0								
75	3	27	13561	S07 W16	252	100	1.0								

MCMATH REGION 13547 CMP DATE 27.5 RETURN OF REGION 13517 ROTATION 2

				CALCIUM PLAGE DATA				SUNSPOT DATA							
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H	STA	AREA	CNT CLASS
75	3	21	13547	N11 E72	241	300	1.5								
75	3	22	13547	N12 E59	240	700	2.0								
75	3	23	13547	N12 E55	236	900	2.5								
75	3	24	13547	N12 E35	240	900	2.5								
75	3	25	13547	N13 E25	240	800	2.5								
75	3	26	13547	N13 E12	239	900	2.0		N12 E07			R	0	1	AXX
75	3	27	13547	N12 W05	241	500	2.0								
75	3	29	13547	N12 W30	241	700	1.5								
75	3	30	13547	N13 W42	241	500	1.5								
75	3	31	13547	N14 W57	239	600	1.5								
75	4	1	13547	N14 W72		400	1.0								

REGIONS OF SOLAR ACTIVITY

MARCH 1975

MCMATH REGION 13551 CMP DATE 27.7

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	23	13551	S10 E55	236	200	1.3								

MCMATH REGION 13563 CMP DATE 27.7

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	29	13563	S17 W25	236	100	1.0								

MCMATH REGION 13559 CMP DATE 29.1

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	25	13559	N22 E46	219	100	1.0								

MCMATH REGION 13552 CMP DATE 29.4

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	23	13552	S10 E79	212	100	1.0								
75	3	24	13552	S10 E60	215	200	2.0								
75	3	25	13552	S10 E50	215	100	1.5								

MCMATH REGION 13562 CMP DATE 31.3

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	26	13562	N27 E62	189	200	1.0								

MCMATH REGION 13566 CMP DATE 31.3

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	30	13566	N27 E09	190	100	1.0								

MCMATH REGION 13565 CMP DATE 31.8

				CALCIUM PLAGE DATA					SUNSPOT DATA						
YR	MO	DA	MC NO.	LAT CMD	L	AREA	INT	MW NO.	LAT CMD	L	MAG.	H STA	AREA	CNT	CLASS
75	3	29	13565	N44 E29	182	100	1.0								

No calcium spectroheliograms were secured at the McMath-Hulbert Observatory on March 6, 7, 10, 11, 12, 14 and 28, 1975.
No sunspot observations were made at Mt. Wilson Observatory on March 5-10, 13, 14, 22 and 25, 1975.

DAILY CALCIUM PLAGE INDEX

MARCH 1975

YR	MO	DAY	INDEX	YR	MO	DAY	INDEX	YR	MO	DAY	INDEX
75	3	1	1.7	75	3	11	*	75	3	21	0.3
75	3	2	2.1	75	3	12	*	75	3	22	0.8
75	3	3	3.5	75	3	13	3.6	75	3	23	2.0
75	3	4	4.1	75	3	14	*	75	3	24	2.5
75	3	5	3.2	75	3	15	2.7	75	3	25	2.0
75	3	6	*	75	3	16	2.1	75	3	26	1.7
75	3	7	*	75	3	17	2.4	75	3	27	1.3
75	3	8	2.9	75	3	18	2.1	75	3	28	*
75	3	9	5.0	75	3	19	1.8	75	3	29	1.3
75	3	10	*	75	3	20	1.0	75	3	30	1.6
								75	3	31	1.5

* NO OBSERVATIONS

SUDDEN IONOSPHERIC DISTURBANCES

MARCH 1975

DAY	UNIVERSAL TIME START	END	MAX	IMP	WIDE SPREAD INDEX	NUMBER OF STATION REPORTS BY TYPE SWF	SCNA	SEA	SPA	LF-SPA	SES	SFD	KNOWN FLARE	McMATH REGION
04	1553U	1605	1557	1-	1			1					1542E	13517
11	0049	0207	0056	1-	1				1				0039	13532
12	0036	0126	0044	1-	1			1	1				0039E	13532
12	1345	1420	1355	1-	1			1	1				1343	13532
13	0032	0118	0050	1-	1				1				0027	13532
14	0103	0142	0107	1-	1				1				0059	13538
14	2341	0046	2356	1-	3				3				2351E	13532
16	1311U	1440	1312U	1-	1			1					1314	13538
16	1905	2010	1923	1-	5	1			1		9		1918	13540
17	0854	0903		1-	1			1					0844	13540
17	1755	1845	1805	1-	5				1		5		1754E	13538
18	1047	1123	1058	1-	1				1				1047	13545
18	1129	1208	1138	1-	1				1				1136	13545

PERIODS OF NO OBSERVATIONS:

DATE	TIME (UT) and STATION
01-03	0000-2400 A30
01	0000-2400 A4, 0000-0854 UM (13 kHz)
02	2040-2119 TM
03-05	0000-2400 A41
03	0000-2400 A4, 2030-2127 UM (16 kHz)
04	0000-2400 TM, 1107-1247 UM (16 kHz), 1640-1654 TM
06	0813-1147 UM (16 kHz)
07	1400-1747 UM (17 kHz)
08	0520-0613 UM (17 kHz), 0650-0747 UM (17 kHz), 0817-0947 UM (16 kHz), 1257-1450 UM (17 kHz)
09	0812-0957 UM (16 kHz)
11	0901-1341 UM (16 kHz)
12	0000-2400 A1
13	0755-0920 UM (16 kHz)
14-31	0000-2400 A41
14	1400-1709 UM (17 kHz)
16	1852-2050 TM
17-21	0000-2400 A19

DATE	TIME (UT) and STATION
17	0000-2400 A4
18-21	0000-2400 A29
18	1005-1250 Um (16 kHz)
19	0758-0907 UM (16 kHz)
21-23	1934-1308 MC
21-31	0000-2400 A28
21	0755-0949 UM (16 kHz), 1400-1739 UM (17 kHz)
22	0850-0906 UM (16 kHz)
23	0805-0900 UM (16 kHz)
24-31	1935-2400 BO
24	0000-0107 UM (13 kHz), 2157-2400 UM (13 kHz)
25	0800-1255 UM (16 kHz)
26	0000-0235 UM (13 kHz)
27	0325-1250 UM (17 kHz), 1953-2015 MC
28	1406-1745 UM (17 kHz), 1750-1826 TM
29	0743-0934 UM (16 kHz)
30	0754-1055 UM (16 kHz)
31	0750-0823 UM (16 kHz)

STATIONS REPORTING FOR MARCH 1975

AAVSO (A1, A4, A19, A21, A28, A29, A30, A31, A32, A35, A36, A37, A40, A41(SES) (A1, A26) (SEA) (A31) (SWF)
BOULDER (BO) (SCNA, SEA)
DARMSTADT (DA) (SWF)
DEBRE ZEIT (DE) (SPA)
HERMANUS (HS) (SEA)
HERSTMONCEUX (HC) (SEA)
HIRAISO (HI) (SWF)
HOBART (TA) (SEA)
INUBO (IN) (SPA)
KULA (KL) (SPA)
MANILA (MA) (SPA)
MC MATH (MC) (SWF, SCNA)
PANSKA VES (PU) (SWF, SEA, SES)
POITIERS (PO) (SEA)
PRESTON (LO) (SEA)
SAO PAULO (UM) (SES, SPA)
SOFIA (SF) (SES)
ST CLOUD (SC) (SES)
TABLE MOUNTAIN (TM) (SPA, LF-SPA)
TORINO (TN) (SPA)
UPICE (UI) (SEA)

SIDS BY McMATH REGION

MARCH 1975

DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
REGION																															
17				1																											
32											1	2	1	1																	
38														1		1	1														
40																1	1														
45																		2													
X-RAY																															
UNKNOWN																															
NO FP																															

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MARCH 1975

MAR 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
01	0000	0745	CULG													
	0000	0351	MANI													
	0637	0738	DURN													
	0655	1621	MEIS													
	0749	1636	DURN													
	1124	2228	SGMR													
	1346	2246	HARV													
	2045	2400	CULG							2045	2400					IIIN,W
	0000	0100	BOUL										2119.0	2119.2	1	III
	2213	2400	MANI													
	1330	2400	BOUL										2238.0	2238.3	1	III
02	0000	0100	BOUL													
	0000	0352	MANI													
	0000	0744	CULG													
	0635	1643	DURN													
	0655	1217	MEIS													
	1122	2229	SGMR													
	1345	2251	HARV													
	1330	2400	BOUL							1614.5	1615.0	1	1614.5	1615.0	1	III
			BOUL							1640.0	1835	1	1640.0	1835	1	IV IIIM
	2044	2400	CULG													
	2212	2400	MANI													
03	0000	0352	MANI													
	0000	0100	BOUL													
	0000	0744	CULG													
	0633	1644	DURN													
	0700	1630	MEIS													
	1121	2231	SGMR													
	1330	2400	BOUL													
	1348	2301	HARV													
	2045	2400	CULG													
	2212	2400	MANI													
04	0000	0352	MANI													
	0000	0100	BOUL													
	0000	0745	CULG							0316						IIIB,W
			CULG							0322		1				IIIB
	0631	1657	DURN													
	0650	1632	MEIS													
	0850	0940	DMIN													
	1114	1522	DMIN													
	1119	2232	SGMR													
	1330	2400	BOUL													
	1346	2246	HARV													
	2045	2400	CULG													
	2211	2400	MANI													
05	0000	0352	MANI													
	0000	0100	BOUL													
	0000	0744	CULG													
	0629	1557	DURN													
	0650	0720	MEIS													
	0725	1633	MEIS													
	1117	2233	SGMR													
	1330	2400	BOUL													
	1337	2246	HARV													
	2044	2400	CULG													
	2210	2400	MANI													
06	0000	0353	MANI													
	0000	0100	BOUL													
	0000	0744	CULG													
	0625	1701	DURN													
	0650	1530	MEIS													
	0810	0930	DMIN													
	1043	1540	DMIN													
	1116	2234	SGMR													
	1330	2400	BOUL													
	1335	2231	HARV													
	2043	2400	CULG													
	2210	2400	MANI													
07	0000	0354	MANI													
	0000	0100	BOUL													
	0000	0743	CULG													
	0624	1703	DURN													
	0650	0926	MEIS													
	0834	1635	MEIS													
	1114	2236	SGMR													
	1330	2400	BOUL													
	1334	2251	HARV													
	2043	2400	CULG													
	2210	2400	MANI													
08	0000	0354	MANI													
	0000	0100	BOUL													
	0000	0743	CULG													
	0622	1703	DURN													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MARCH 1975

DAY UTC	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
	START UT	END UT		CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
				START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
08	0645	0819	MEIS													
	1112	2237	SGMR													
	1330	2400	BOUL													
	1332	2251	HARV													
	2043	2400	CULG													
	2209	2400	MANI													
09	0000	0954	MANI													
	0000	0100	BOUL													
	0000	0743	CULG													
	1111	2238	SGMR													
	1258	1706	DURN													
	1330	2400	BOUL													
	1331	2246	HARV													
	2043	2147	CULG													
	2201	2400	CULG													
	2208	2400	MANI													
10	0000	0955	MANI													
	0000	0100	BOUL													
	0000	0742	CULG													
	0616	1707	DURN													
	0805	0927	OWIN													
	1109	2239	SGMR													
	1330	2316	HARV													
	1635	1639	MEIS							1331.0	1331.5	2				IIIG
	1330	2400	BOUL							1803.7	1803.9	1	1803.7	1803.9	1	III
	2043	2400	CULG													
	2207	2400	MANI													
11	0000	0955	MANI													
	0000	0100	BOUL													
	0000	0742	CULG													
	0620	1709	DURN													
	0635	1640	MEIS													
	1107	2240	SGMR													
	1300	2400	BOUL													
	1332	2246	HARV													
	2043	2400	CULG													
	2206	2400	MANI													
12	0000	0956	MANI													
	0000	0100	BOUL													
	0000	0742	CULG													
	0609	1711	DURN													
	0634	1036	MEIS													
	1043	1645	MEIS													
	1105	1910	SGMR													
	1300	2400	BOUL													
	1331	2301	HARV													
	2042	2400	CULG													
	2205	2400	MANI													
13	0000	0957	MANI													
	0000	0100	BOUL													
	0000	0737	CULG													
	0609	1713	DURN													
	0630	1645	MEIS													
	1059	1521	OWIN													
	1104	2243	SGMR													
	1300	2400	BOUL													
	1331	1638	HARV													
	1654	2245	HARV													
	2042	2400	CULG													
	2205	2400	MANI													
14	0000	0958	MANI													
	0000	0100	BOUL													
	0000	0736	CULG													
	0608	1712	DURN													
	0627	1006	MEIS													
	0812	1509	OWIN													
	1011	1647	MEIS													
	1102	2244	SGMR													
	1300	2400	BOUL													
	1332	2246	HARV													
	2042	2400	CULG													
	2204	2400	MANI													
15	0000	0959	MANI													
	0000	0100	BOUL													
	0000	0741	CULG													
	0605	1713	DURN													
	0625	1549	MEIS													
	1123	2245	SGMR													
	1332	2246	HARV													
	1300	2400	BOUL							1918.8	1919.2	1	1918.8	1919.2	1	III
	2041	2400	CULG													
	2204	2400	MANI													
16	0000	1000	MANI													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MARCH 1975

MAR 1975	TIMES OF OBSERVATION		STATION	EVENTS													SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND				
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.		
16	0000	0100	BOUL														
	0000	0737	CULG														
	0625	0937	HEIS														
	0640	1713	DURN														
	1059	2246	SGMR														
	1332	2246	HARV														
			CULG							2042	2400						IIIN,W
	2042	2400	CULG							2042	2400						IS,W
	2204	2400	HANI														
	1300	2400	BOUL										2207.4	2400	1		CONT
17	0000	0130	BOUL										0000	0030	1		CONT
	0000	1000	HANI														
	0000	0741	CULG							0000	0741						IIIN,W
	0601	1714	DURN							0620	1714 D	2					I
	0720	1651	HEIS							0720.0	1630.0	1					IS
			HEIS							1031.0	1031.2	1					IIIB
	1057	2247	SGMR														
	1331	2245	HARV														
	1300	2400	BOUL							1640	2000	1	1640	2000	1		CONT
			BOUL										2000	2400	1		CONT
	2041	2400	CULG							2041	2400						IIIN,W
			CULG							2119		1					IIIB
	2204	2400	HANI														
18	0000	1000	HANI														
	0000	0130	BOUL														
	0000	0740	CULG														
	0556	1719	DURN							0556 E	1300	1					I
	0620	1621	HEIS							0625	1520.0	1					IN
	0837	1529	DHIN				0837	1529	1	0837	1529	1					IC
	1055	2249	SGMR														
	1300	2400	BOUL														
	1331	2246	HARV														
	2040	2400	CULG														
	2204	2400	HANI														
19	0000	1001	HANI														
	0000	0740	CULG							0007	0008	2					IIIG,U
	0000	0130	BOUL							0007.0	0008.1	2					IIIG
	0557	1718	DURN														
	0812	1519	DHIN				0812	1519	1	0812	1519	1					IN
			DHIN				0813.7		2	0813.7		2					IIIB
	0829	0930	HEIS														
	1025	1655	HEIS														
	1053	2250	SGMR														
	1300	2400	BOUL														
	1331	2301	HARV														
	2040	2218	CULG														
	2203	2400	HANI														
	2230	2400	CULG														
20	0000	0740	CULG														
	0000	1002	HANI														
	0000	0130	BOUL														
	0557	1151	DURN														
	0615	1502	HEIS														
	1052	2251	SGMR														
	1300	2400	BOUL														
	1331	2246	HARV														
	1505	1659	HEIS														
	2202	2400	HANI														
	2040	2400	CULG							2357	0001	1					UNCLF
21	0000	0739	CULG														
	0000	1002	HANI														
	0000	0130	BOUL														
	0615	1701	HEIS														
	0611	1729	DURN							1020.2	1020.5	1					IIIG,RS
	1050	2252	SGMR														
	1300	2400	BOUL														
	1332	2253	HARV														
	2039	2400	CULG														
	2201	2400	HANI														
22	0000	1003	HANI														
	0000	0130	BOUL														
	0000	0739	CULG														
	0550	1727	DURN														
	0614	1320	HEIS														
	1048	2253	SGMR														
	1300	2400	BOUL														
	1331	2301	HARV														
	2039	2400	CULG														
	2201	2400	HANI														
23	0000	1003	HANI														
	0000	0130	BOUL														
	0000	0739	CULG														
	0547	1728	DURN														

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MARCH 1975

MAR 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
23	1046	2254	SGMR													
	1300	2400	BOUL													
	1331	2246	HARV													
	2039	2400	CULG													
	2201	2400	HANI													
24	0000	1004	HANI													
	0000	0130	BOUL													
	0000	0739	CULG													
	0546	1729	DURN													
	0745	1702	HEIS													
	1045	2255	SGMR													
	1300	2400	BOUL													
	1332	2246	HARV													
	2200	2400	HANI													
25	0000	1005	HANI													
	0000	0130	BOUL													
	0546	1635	DURN													
	0613	1206	HEIS													
	1043	2257	SGMR													
	1213	1641	HEIS													
	1300	2400	BOUL													
	1319	2246	HARV													
	2050	2400	CULG													
	2200	2400	HANI													
26	0000	1006	HANI													
	0000	0130	BOUL													
	0000	0738	CULG													
	0623	1735	DURN													
	0750	1700	HEIS													
	1042	2258	SGMR													
	1300	2400	BOUL													
	1320	2246	HARV													
	2038	2400	CULG													
	2200	2400	HANI													
27	0000	1007	HANI													
	0000	0130	BOUL													
	0000	0738	CULG													
	0540	1735	DURN													
	0601	1054	HEIS													
	1039	2259	SGMR													
	1119	1704	HEIS													
	1300	2400	BOUL													
	1317	2245	HARV													
	2038	2400	CULG													
	2159	2400	HANI													
28	0000	1007	HANI													
	0000	0130	BOUL													
	0000	0722	CULG													
	0539	1736	DURN													
	0602	1705	HEIS													
	1038	2300	SGMR													
	1300	2400	BOUL													
	1317	2241	HARV													
	2156	2400	HANI													
	2310	2400	CULG													
29	0000	0732	CULG													
	0000	1007	HANI													
	0000	0130	BOUL													
	0538	1736	DURN													
	0602	0914	HEIS													
	1014	1704	HEIS													
	1036	2301	SGMR													
	1300	2400	BOUL													
	1318	2301	HARV													
	2037	2400	CULG													
	2156	2400	HANI													
30	0000	1007	HANI													
	0000	0130	BOUL													
	0000	0737	CULG													
	0538	0714	DURN													
	0554	1704	HEIS													
	0728	1739	DURN													
	1034	2302	SGMR													
	1230	2400	BOUL													
	1317	2246	HARV													
	2037	2251	CULG													
	2155	2400	HANI													
	2305	2400	CULG													
31	0000	0736	CULG													
	0000	1007	HANI													
	0000	0130	BOUL													
	0553	0744	HEIS													

SOLAR RADIO EMISSION
SPECTRAL OBSERVATIONS

MARCH 1975

MAR 1975	TIMES OF OBSERVATION		STATION	EVENTS												SPECTRAL TYPE
				CENTIMETRIC BAND			DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
	START UT	END UT		START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	START UT	END UT	INT.	
31	1032	2304	SGMR													
	1230	2400	BOUL													
	1317	2316	HARV													
	1501	1740	JURN													
	2036	2400	CULG													
	2154	2400	HANI													

The symbols used in connection with the spectral type in describing the important bursts are as follows:

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of bursts
C = Underlying continuum (particularly with type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period
U = U-shaped burst of Type III
RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
W = Weak
P = Pulsations
CONT = Continuum
UNCLF = Unclassified activity

SELECTED SOLAR EVENTS

MARCH 1975

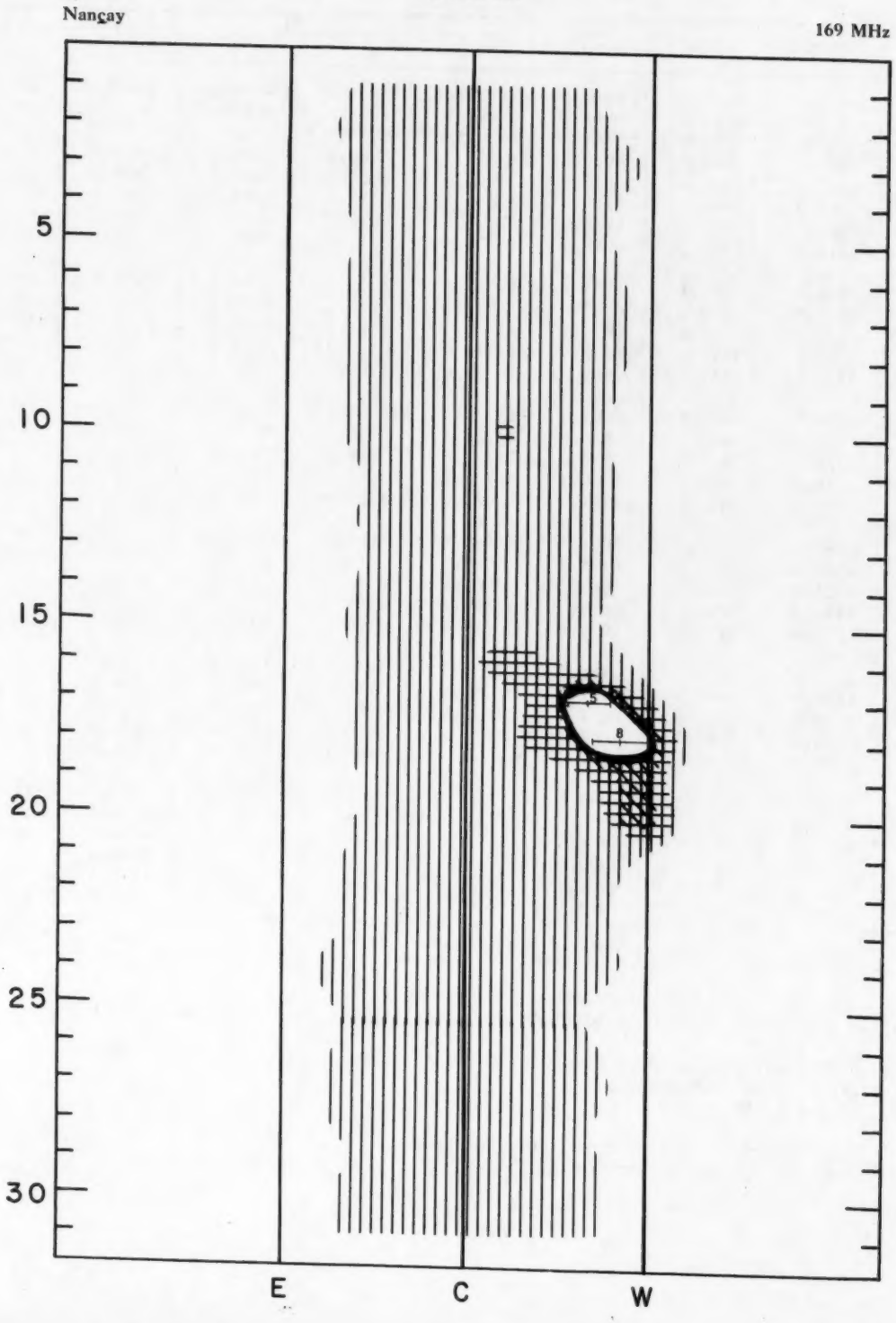
Culgoora

UT Date 1975. MARCH	HELIOGRAPH EVENT							Spectral Type	REMARKS
	Start (UT)	End (UT)	Freq. (MHz)	Positions		Polarization	Intensity (1-3)		
				Central Dist. ($R_\odot$)	Position Angle (Deg.)				
17	2300	0500	(80	0.7	220	L	1)	I	
			(160	0.7	220	L	1-2)		
19	0005	0008	(43.25	1.3	260	-	1)		
			(80	1.0	260	O	3)	IIIG,U	
			(160	0.9	260	O	3)		

Days without Heliograph observations: ..... Nil .....

SOLAR RADIO EMISSION
INTERFEROMETRIC OBSERVATION

MARCH 1975



COSMIC RAY INDICES
(Neutron Monitors)
MARCH 1975

MAR. 1975	THULE Average cts/hr	ALERT Average cts/hr	DEEP RIVER Average cts/hr	CALGARY Average cts/hr	SULPHUR MT Average cts/hr	KIEL Average cts/hr	CLIMAX Average cts/hr	TOKYO Average cts/hr
1	4492.4	7442.4	6966.6	11806.2	8868.9	6280.2	4196.6	3556.2
2	4491.5	7446.0	6988.3	11771.6	8880.2	6296.2	4198.1	3557.9
3	4507.3	7445.0	6978.4	11753.7	8859.4	6286.5	4184.3	3543.2
4	4509.5	7436.3	6937.9	11723.2	8832.2	6262.3	4158.3	3530.4
5	4512.2	7430.5	6948.0	11729.8	8857.0	6270.9	4188.5	3531.5
6	4476.0	7371.1	6907.2	11710.2	8834.5	6263.3	4196.8	3543.5
7	4440.3	7328.2	6848.9	11619.3	8730.7	6191.2	4117.1	3518.6
8	4529.3	7444.2	6953.7	11734.2	8853.7	6284.0	4180.0	3537.6
9	4515.7	7424.1	6957.6	11776.6	8878.2	6288.2	4194.2	3548.7
10	4541.5	7455.1	6962.0	11772.4	8900.1	6329.3	4269.1	3560.4
11	4550.9	7467.2	6961.0	11758.6	8889.8	6309.1	4264.9	3563.9
12	4523.9	7421.5	6930.0	11734.7	8880.6	6285.6	4245.8	3563.1
13	4518.2	7417.8	6942.0	11771.6	8896.2	6301.6	4237.5	3559.6
14	4520.3	7436.0	6964.3	11797.1	8916.7	6313.4	4236.7	3562.6
15	4540.0	7450.9	6991.8	11821.0	8937.4	6347.0	4258.2	3574.3
16	4555.8	7486.0	7001.7	11868.8	8986.7	6365.6	4259.9	3578.2
17	4544.3	7476.4	6998.2	11859.9	8968.5	6358.1	4258.2	3579.2
18	4554.2	7488.2	7003.1	11865.8	8977.1	6356.9	4246.3	3572.6
19	4542.8	7464.8	6994.5	11846.1	8951.0	6338.5	4215.2	3570.7
20	4540.4	7456.2	6996.2	11829.4	8924.7	6304.6	4215.2	3558.5
21	4539.8	7463.7	6985.7	11822.2	8920.6	6298.7	4173.7	3568.2
22	4537.6	7475.9	6987.5	11765.6	8910.0	6317.0	4174.3	3556.3
23	4520.8	7445.5	6957.6	11683.5	8902.0	6329.6	4213.5	3570.8
24	4510.8	7440.4	6968.3	11672.7	8910.0	6334.2	4202.5	3564.1
25	4533.4	7474.5	6967.8	- (0)	8894.1	6326.9	4171.7	3557.5
26	4519.5	7444.3	6982.0	- (0)	8879.1	6333.5	4214.7	3553.2
27	4473.1	7362.5	6900.7	- (0)	- (0)	6294.8	4214.1	3551.7
28	4481.8	7384.3	6896.1	- (0)	- (0)	6304.2	4189.4	3548.7
29	4504.3	7424.5	6932.4	- (0)	- (0)	6316.0	4194.3	3553.4
30	4522.6	7445.8	6991.3	- (0)	- (0)	6320.7	4198.9	3559.4
31	4540.3	7476.5	7013.1	- (0)	- (0)	6331.2	4237.0	3567.4
MEAN	4519.0	7439.5	6965.0	11770.6	8893.8	6307.7	4209.8	3556.8

( ) Number of hours for which data are available if less than 24.
Asterisk indicates sum of both sections at Climax is less than 40 hours.

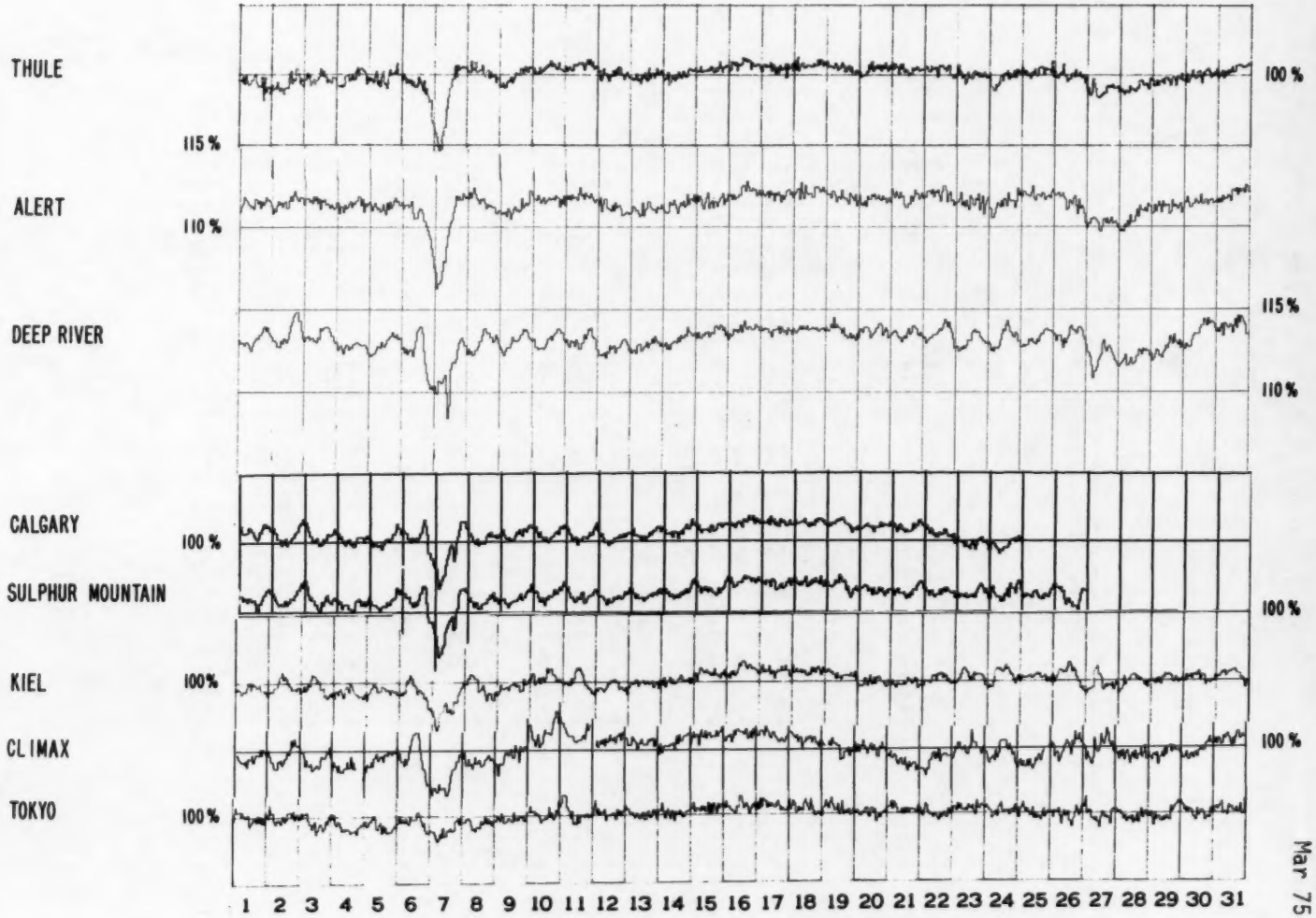
Thule, Alert, Calgary, Sulphur Mountain, Kiel and Climax Scaling Factors = 100.
Deep River Scaling Factor = 300.
Tokyo Scaling Factor = 128.

N: One section normalized by multiplicative factor.
E: One section estimated from sections ratio.

COSMIC RAY INDICES

(Neutron Monitors)

MARCH 1975

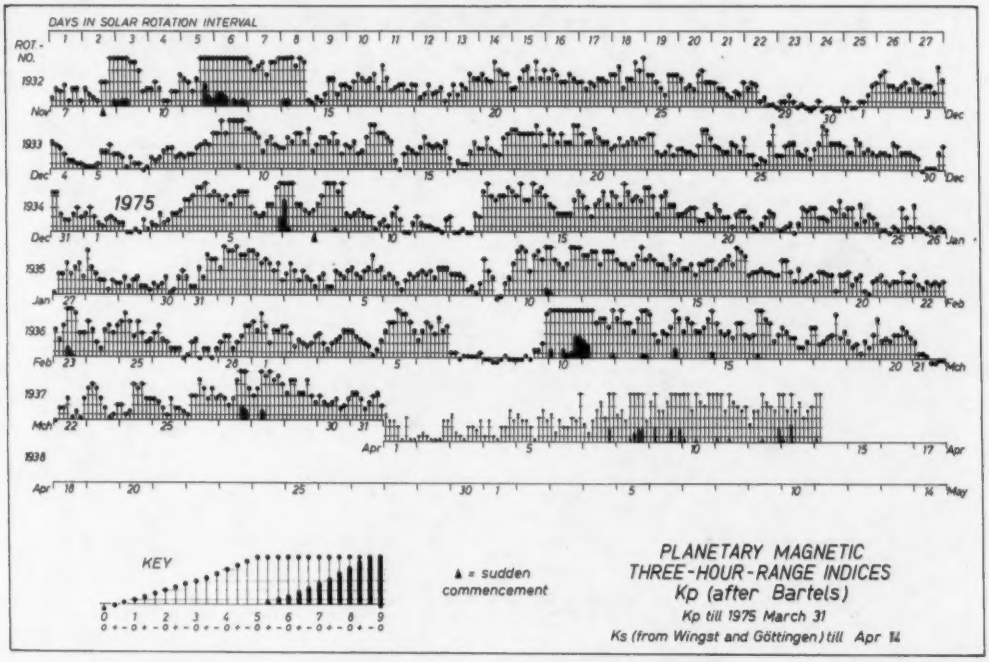


GEOMAGNETIC ACTIVITY INDICES

MARCH 1975

Day	Three-Hour Range Indices Kp									Prel Ci	Cp	Ap	aa			
	1	2	3	4	5	6	7	8	Sum				N	S	M	
1	4	3+	5-	4-	2	3+	3+	4-	28	1.0	1.1	21	38	36	42 32	
2 Q	4-	3	2-	2+	2	2-	2	3-	19	0.4	0.6	10	17	20	20 18	
3	3	2	1+	2	2+	3-	3+	3+	20	0.6	0.7	11	20	16	15 22	
4 Q	3+	3-	2+	2	2-	1-	1+	2+	16+	0.3	0.5	9	17	14	17 14	
5	3+	4	4	5	5-	5-	4	3+	33	1.3	1.3	30	44	47	39 53	
6	2+	3+	4	4-	3	4+	3+	4-	28-	1.1	1.0	20	43	37	32 47	
7QQ	1	1	0+	1-	1-	1-	1-	1	6	0.0	0.1	3	7	6	5 8	C
8QQ	0+	0+	0	0	0+	1-	0+	0+	2+	0.0	0.0	2	4	4	4 5	CC
9 Q	0+	0+	1-	0+	1+	1+	2	5-	11	0.4	0.4	8	22	15	6 31	
10 D	6	5	5	6	5+	6-	7	7	47	1.8	1.8	80	88	108	94 103	
11 D	7-	6+	5	4	4+	4+	4-	5+	40-	1.7	1.6	53	67	89	103 54	
12 D	4+	5	4	4	3+	4+	5+	5+	36-	1.5	1.4	37	49	64	47 66	
13	5-	3	2+	3+	3	4-	6	4+	30+	1.2	1.3	29	47	37	30 54	
14	3+	4+	4	3+	3+	4-	4+	6-	32	1.3	1.3	29	49	49	39 59	
15	4	3+	3	3+	3-	4	4	3	27+	0.8	1.0	20	38	39	32 45	
16	3-	3	5+	5	4+	4	2+	3	30-	1.2	1.2	27	36	51	46 41	
17	4-	3+	3-	3-	2-	2-	2+	4-	22-	0.8	0.8	13	24	20	22 22	
18	4-	2	2+	3-	3	5-	3-	3+	24+	1.0	0.9	17	33	29	24 39	
19 Q	2+	2-	2	1	2+	2-	3	4+	18+	0.7	0.6	11	25	21	10 36	
20	2+	3-	2+	3	3	4-	3+	3-	23	0.9	0.8	14	29	29	24 34	
21QQ	2+	1	1	1-	0	0	0+	0+	6-	0.0	0.1	3	5	5	8 3	C
22QQ	0+	2-	2-	3-	1-	1+	1-	3-	12-	0.1	0.3	6	14	10	13 11	KK
23	4-	4	4-	3-	2-	1-	1	2	19+	0.8	0.7	13	20	15	27 9	
24	2	1	1+	4	4-	4	3-	3-	21+	1.0	0.8	14	24	33	17 40	
25QQ	3-	2+	2-	1	3-	2-	2-	1+	15	0.6	0.4	8	13	19	13 19	
26	1	3	3	4+	4-	3-	4-	3-	24	1.0	0.9	17	29	33	33 30	
27 D	3	3-	2	3-	4+	6+	6	4-	31-	1.5	1.4	34	39	52	17 74	
28 D	3	4-	6	5-	5	4+	5-	4	35+	1.5	1.4	38	55	47	50 52	
29	3+	4+	4+	3+	3+	4+	3	2+	28+	1.1	1.1	22	29	39	36 32	
30 Q	3	2+	2	2+	3-	2-	2	3-	19-	0.5	0.5	10	19	17	18 20	
31	3+	3+	3-	2-	2+	3	3+	2	22-	0.6	0.7	13	24	20	18 27	D
									MEAN	0.86	0.86	20	31.3	33.0	32.2	

GEOMAGNETIC ACTIVITY INDICES



DAILY AVERAGE INDICES Ap

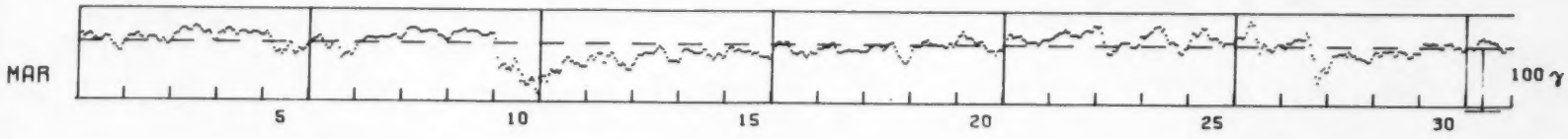
DAY	1974 APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1975 JAN	FEB	MAR
1	17	9	28	10	6	24	28	6	6	7	37	21
2	15	18	18	12	22	32	30	5	15	4	23	10
3	39	24	19	9	35	16	12	6	15	7	12	11
4	35	34	9	31	24	20	8	3	9	32	10	9
5	18	35	6	74	21	19	10	5	7	27	17	30
6	26	6	6	130	20	14	11	10	4	26	8	20
7	18	15	3	15	22	12	6	7	8	44	15	3
8	13	13	6	36	16	7	10	21	13	36	8	2
9	16	11	7	15	16	5	39	39	42	7	11	8
10	28	3	15	20	16	6	10	10	20	6	38	80
11	19	5	32	14	10	4	6	48	21	4	36	53
12	3	5	29	23	5	6	17	70	18	4	35	37
13	7	4	21	12	6	16	86	36	22	32	27	29
14	5	10	18	23	5	9	30	38	13	33	25	29
15	4	30	37	10	4	73	50	10	14	15	21	20
16	4	26	16	10	6	88	68	16	8	21	30	27
17	6	38	15	8	6	3	47	14	18	29	14	13
18	48	24	10	6	10	19	43	8	28	22	15	17
19	39	18	13	6	40	34	29	14	27	10	11	11
20	46	18	18	11	46	35	41	22	21	10	8	14
21	35	18	7	9	39	43	10	24	19	6	8	3
22	31	22	8	8	37	24	15	18	14	8	7	6
23	29	25	7	82	36	16	5	16	17	12	32	13
24	19	39	8	51	26	26	38	26	14	10	17	14
25	20	14	10	22	13	30	22	19	12	5	20	8
26	21	11	40	20	7	38	28	17	12	5	9	17
27	19	14	54	24	18	25	25	9	21	14	5	34
28	23	10	26	18	20	14	29	6	12	12	12	38
29	19	7	19	13	31	16	18	3	11	6		22
30	16	17	15	8	17	21	12	2	6	7		10
31		30		6	21		8		14	16		13
MEAN	21	18	17	24	19	23	26	18	15	15	18	20

HOURLY EQUATORIAL Dst VALUES (PROVISIONAL)

NASA/GODDARD SPACE FLIGHT CENTER

(Time-UT) MARCH 1975 (Units-Gammas)

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	12	13	6	9	11	13	9	3	5	1	2	0	4	8	6	5	-2	-7	-7	-11	-16	-15	-6	-2
2	1	7	8	8	8	11	12	7	4	-1	0	4	7	6	5	4	1	-3	-1	3	-1	-5	-4	-1
3	4	10	12	13	17	20	21	20	17	15	15	22	25	22	20	17	13	11	15	16	11	1	-1	2
4	12	13	15	12	18	20	19	16	16	9	10	14	16	17	14	12	11	11	15	14	13	14	10	9
5	11	15	11	6	-3	-12	-17	-16	-14	-21	-15	-16	-8	-1	-4	-17	-21	-17	-10	-13	-15	-11	-6	-3
6	-1	2	5	6	9	10	4	-1	-7	-11	-10	-6	-1	1	1	-11	-26	-22	-18	-17	-16	-21	-19	-12
7	-6	-1	1	1	4	7	8	6	7	5	5	7	8	8	6	7	7	8	10	11	12	7	4	4
8	9	13	20	22	23	22	23	20	18	15	17	16	17	19	19	19	18	15	10	9	8	6	3	4
9	6	12	16	16	16	18	19	20	21	17	18	19	17	16	18	15	13	10	11	10	12	15	13	15
10	4	-25	-41	-37	-34	-34	-43	-40	-44	-38	-25	-30	-44	-61	-50	-62	-66	-65	-58	-55	-59	-74	-79	-55
11	-60	-52	-53	-62	-50	-42	-46	-47	-43	-48	-44	-31	-28	-23	-24	-29	-30	-34	-32	-34	-37	-38	-37	-37
12	-27	-22	-20	-28	-23	-16	-17	-17	-32	-33	-20	-21	-15	-17	-25	-29	-35	-36	-32	-35	-42	-43	-41	-34
13	-32	-24	-18	-18	-18	-15	-14	-16	-16	-16	-17	-12	-8	-4	-7	-10	-14	-23	-28	-28	-27	-28	-28	-30
14	-24	-12	-9	-8	-10	-12	-13	-16	-14	-16	-14	-13	-9	-9	-19	-19	-21	-25	-22	-17	-15	-18	-23	-20
15	-11	-7	-5	-6	-11	-10	-8	-11	-13	-13	-12	-11	-12	-17	-14	-16	-13	-20	-21	-22	-21	-21	-24	-17
16	-8	-4	3	3	0	-2	3	3	-5	-11	-15	-15	-17	-14	-12	-14	-18	-22	-17	-12	-15	-16	-15	-7
17	-7	-8	-4	-4	-6	-3	2	2	-6	-13	-14	-12	-11	-10	-10	-8	-11	-9	-9	-10	-9	-12	-11	-12
18	-11	-9	-5	-3	0	-1	0	1	-4	-9	-6	-3	1	3	3	-3	-11	-18	-21	-26	-29	-30	-26	-19
19	-8	-3	-2	-2	-2	4	6	4	8	3	0	0	-1	-2	-1	0	-3	-5	-3	2	2	-3	2	7
20	14	16	21	15	10	11	12	8	4	1	4	6	4	-1	-5	-10	-10	-10	-9	-17	-9	-7	-9	-6
21	0	10	17	15	12	13	14	14	15	9	7	3	4	4	5	5	4	0	3	7	9	8	9	9
22	11	13	16	17	20	19	21	25	21	21	16	17	15	15	13	15	19	22	24	23	21	23	31	31
23	27	30	19	4	-2	-13	-15	-14	-8	-8	-5	1	5	5	5	5	4	-3	-3	-4	-1	2	15	14
24	12	16	18	21	23	28	30	31	31	22	27	16	9	3	6	7	2	1	-10	-13	-13	-4	-3	2
25	10	21	19	16	18	22	29	26	28	17	12	10	13	12	10	6	6	0	4	5	3	3	5	9
26	13	15	14	12	15	22	32	39	34	33	11	7	-11	-1	4	1	-5	-5	-9	-6	0	3	4	4
27	1	-4	6	4	4	8	11	11	13	10	9	11	22	15	2	-14	-19	-47	-58	-48	-37	-34	-41	-39
28	-31	-23	-14	-13	-15	-11	-11	-13	-10	-15	-7	-11	-15	-13	-18	-19	-19	-21	-21	-23	-25	-23	-19	-11
29	-8	-9	-14	-12	-7	-6	-9	-6	-6	-8	-15	-12	-6	-6	-9	-8	-11	-17	-16	-15	-10	-9	-10	-9
30	-1	7	7	4	4	4	7	4	5	0	-3	-2	5	5	6	7	2	-2	0	0	-2	-6	-6	-3
31	0	0	0	-4	-1	7	11	12	14	10	11	10	7	8	5	4	1	-3	-7	-7	-1	0	0	0



PRINCIPAL MAGNETIC STORMS

MARCH 1975

OBS. 2 letter IAGA code	GEOMAG-NETIC LATI-TUDE	COMMENCEMENT DAY	hr min (UT)	TYPE	SC - AMPLITUDES D(')	H(γ)	Z(γ)	MAXIMUM 3 HOUR - INDEX K DAY(3 HOUR PERIOD)	K	RANGES D(')	H(γ)	Z(γ)	UT END DAY	HOUR
NE	55.1N	4	1257	..	..	..	..	05(3,4) 06(3)	5	26	265	160	06	23
KG	56.5S	4	22--	..	..	..	..	5(6) 6(6)	5	--	--	--	06	22
CO	64.6N	5	01--	..	..	..	..	05(3,4)	7	152	1870	760	05	20
SI	60.0N	5	01--	..	..	..	..	5(3)	6	60	400	460	06	21
WI	54.2N	5	09--	..	..	..	..	05(6)	6	25	175	50	06	23
BD	48.9N	5	02--	..	..	..	..	05(4)	5	15	80	55	06	23
IR	41.0N	5	01--	..	..	..	..	05(5,6)	6	23	100	28	06	23
HO	7.6N	5	0200	..	..	..	..	5(6)	5	4	69	13	05	23
GU	4.0N	5	0128	..	..	..	..	05(5)	5	0	120	40	06	19
HU	0.6S	5	0200	..	..	..	..	06(6)	5	9	170	40	06	22
HO	7.6N	6	0400	..	..	..	..	6(6)	4	3	85	11	06	23
NE	55.1N	9	14--	..	..	..	..	10(4,5) 11(1,2,3) 16(3)	6	63	233	422	17	12
WI	54.2N	9	20--	..	..	..	..	10(7,8) 13(7)	7	54	320	150	15	02
FR	49.6N	9	23--	..	..	..	..	10(8) 11(1,2)	6	40	132	125	16	15
BD	48.9N	9	23--	..	..	..	..	11(1)	7	43	155	110	16	20
IR	41.0N	9	14--	..	..	..	..	10(4,5)	7	38	163	90	13	02
TU	40.4N	9	23--	..	..	..	..	10(4) 11(1,2)	6	23	165	45	15	12
HO	21.1N	9	20--	..	..	..	..	11(2)	6	7	181	34	11	14
AL	9.5N	9	20--	..	..	..	..	10(1,7)	6	5	194	35	11	23
HO	7.6N	9	2000	..	..	..	..	10(1,5)	6	4	197	28	13	03
AN	1.5N	9	20--	..	..	..	..	--	-	4	182	82	11	23
TV	1.1S	9	20--	..	..	..	..	--	-	3	199	138	11	23
PM	18.7S	9	20--	..	..	..	..	10(4,5) 11(1,2,4)	5	6	140	70	16	17
HR	33.7S	9	22--	..	..	..	..	10(7,8) 13(7)	6	41	171	154	15	02
GN	43.2S	9	23--	..	..	..	..	10(4)	8	34	210	180	13	00
TO	46.7S	9	22--	..	..	..	..	10(4)	7	30	300	90	13	04
KG	56.5S	9	20--	..	..	..	..	10(7,8)	8	--	--	--	13	04
CO	64.6N	10	00--	..	..	..	..	10(4) 12(4)	7	326	1570	1350	13	03
SI	60.0N	10	00--	..	..	..	..	10(5)	-	--	--	830	16	20
SJ	29.9N	10	2246	..	..	..	..	10(1)	6	11	120	37	13	03
GU	4.0N	10	0012	..	..	..	..	10(1)	6	0	170	40	17	12
HU	0.6S	10	0000	..	..	..	..	10(5,6)	6	6	273	45	13	03
IR	41.0N	13	04--	..	..	..	..	13(4,6,7) 14(5,8) 16(4,5)	5	20	108	42	16	19
HO	7.6N	16	0500	..	..	..	..	16(5)	5	3	110	15	16	21
AL	9.5N	23	2208	SC	- 0.3	9	- 3	24(4,6)	5	4	122	18	25	00
HO	7.6N	23	2207	SC	- 0.3	+11	- 1	24(4,6)	5	4	134	13	25	22
GU	4.0N	23	2208	..	..	..	..	24(5)	5	0	110	20	25	15
AN	1.5N	23	2208	SC	- 0.5	11	7	--	-	3	130	40	25	00
TV	1.1S	23	2238	SC	0.0	8	11	--	-	2	141	83	25	00
PM	18.7S	23	2207	SC*	- 0.5*	+12	+ 9	24(5)	5	3	110	60	26	00
IR	41.0N	24	07--	..	..	..	..	24(5)	6	17	94	30	24	23
HU	0.6S	24	0925	..	..	..	..	24(6)	5	5	126	24	24	23
SI	60.0N	26	1012	SC	- 4.6	+15.8	+ 7.4	27(5)	-	--	--	540	29	13
NE	55.1N	26	02--	..	..	..	..	28(3)	6	38	211	147	30	02
HO	7.6N	26	0620	SC	0.0	+ 9	- 1	26(4,5,7)	4	3	124	17	26	22
GU	4.0N	26	0624	..	..	..	..	26(4)	5	10	110	30	28	16
PM	18.7S	26	04--	..	..	..	..	27(6)	6	4	120	80	29	18
GN	43.2S	26	03--	..	..	..	..	27(6)	7	29	110	120	29	19
CO	64.6N	27	08--	..	..	..	..	27(6)	8	470	1920	1200	29	20
WI	54.2N	27	12--	..	..	..	..	27(6) 28(7) 29(5)	6	35	225	105	29	20
FR	49.6N	27	13--	..	..	..	..	27(6,7) 28(3) 29(2)	5	28	141	57	30	02
BD	48.9N	27	11--	..	..	..	..	27(6)	6	26	163	50	30	03
IR	41.0N	27	05--	..	..	..	..	27(7)	7	33	118	40	29	21
TU	40.4N	27	13--	..	..	..	..	27(6,7) 28(3) 29(2)	5	12	100	25	29	20
AL	9.5N	27	11--	..	..	..	..	27(7)	6	4	128	16	27	24
HO	7.6N	27	0300	..	..	..	..	27(7)	6	5	171	17	28	23
AN	1.5N	27	11--	..	..	..	..	--	-	3	115	40	27	24
TV	1.1S	27	11--	..	..	..	..	--	-	2	124	77	27	24
HR	33.7S	27	08--	..	..	..	..	27(6,7)	6	22	156	146	28	23
TO	46.7S	27	08--	..	..	..	..	27(6)	6	22	220	70	28	03
KG	56.5S	27	09--	..	..	..	..	27(6)	7	--	--	--	29	21

Reports were received from the following observatories:

College
Sitka
Newport
Witteveen
Fredericksburg
Boulder
Irkutsk
Tucson
San Juan
Honolulu
Alibag
Hyderabad
Guam
Annamalainagar
Huancayo
Trivandrum
Port Moresby
Hermanus
Gnangara
Toolangi
Port-aux-Francais

SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS

MARCH 1975

PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS (by Dr. A. Romana)

The meaning of the station symbols is given in the IAGA-Bulletins nr. 12 and 32. Times of ssc and si are mean values. If given by ten or more stations they are underlined.

Sudden commencements followed by a magnetic storm or a period of storminess (ssc)

23 2208 A: LG; B: PM HU; C: SI EB AE PP (si: A: SF LM - b: C: CF - cr: A: TL)

Sudden impulses found in the magnetograms (si)

10 1832 A: LG KG; B: WN FU LM (ssc: A: SO; C: SZ - b: A: SF - bs: B: DB bp: A: EB; B: CZ - bps: A: TL)

22 1012 A: LG IK AE SF; B: WN FU EB TL? LM; C: PP (sfe: WI)

Solar-flare effects (sfe)

Effects confirmed by ionospheric or solar observations are underlined.

07 1453 - 1505 LG

07 2107 - 2122 IK

21 1815 - 1830 LG AE

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

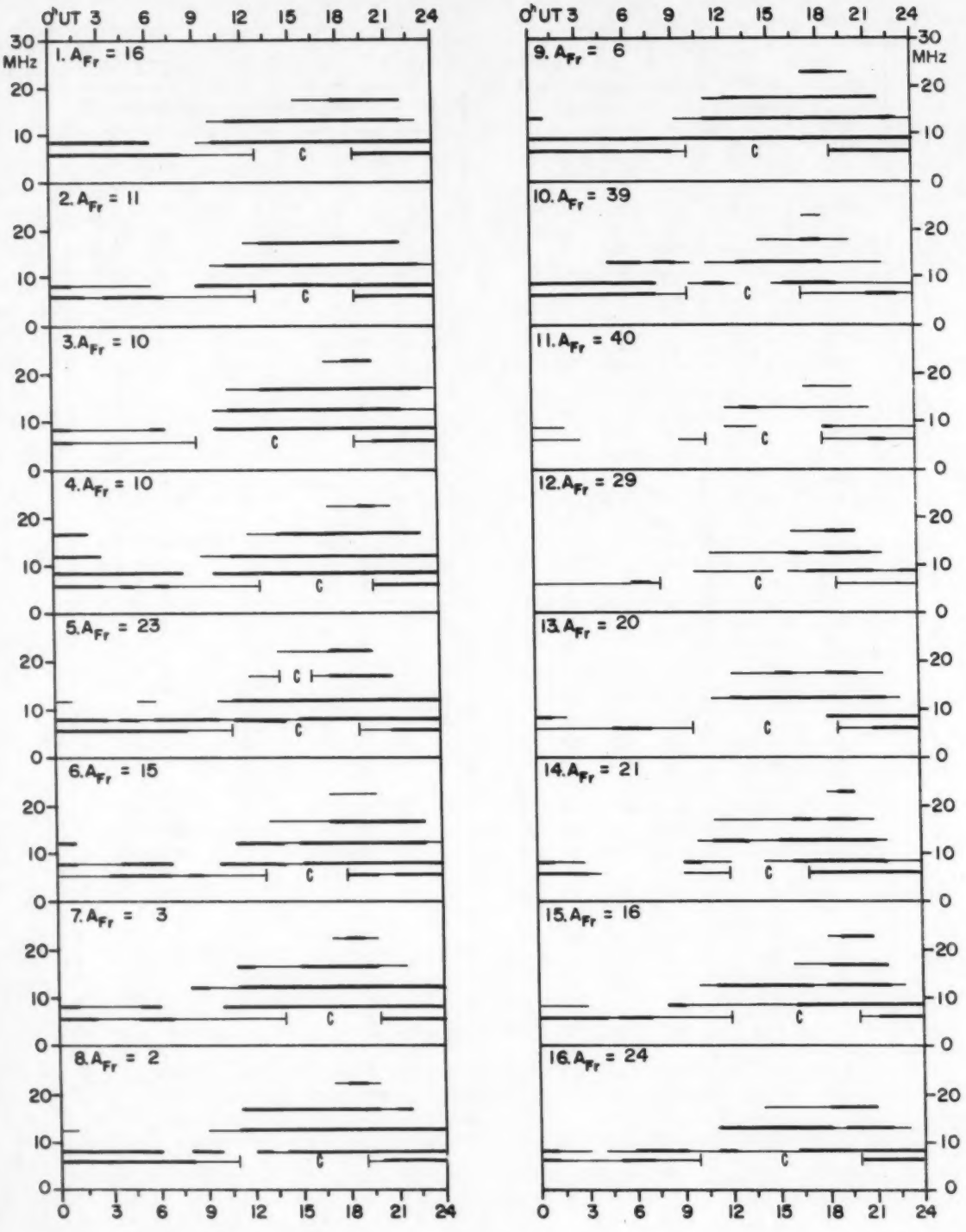
MARCH 1975

North Atlantic

MAR 1975	WHOLE DAY INDICES NORTH ATLANTIC	ADVANCE FORECASTS (JC-REPORTS) FOR WHOLE DAY	NORTH ATLANTIC 6-HOURLY QUALITY FIGURES 00 TO 06	06 TO 12	12 TO 18	18 TO 24	SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF 02	08	14	20	GEOMAGNETIC INDICES K_{FR} HALF DAY (1)	(2)	A_{FR} OBSERVED
01	6-	5	6o	5+	5+	6+	6	5	5	6	(4)	2	17
02	6o	5	6-	6o	7-	6o	5	5	5	5	3	2	11
03	6-	5	6-	5o	7-	6-	5	5	5	6	2	3	10
04	6-	5	6-	5o	6+	6-	6	5	5	6	3	2	10
05	5o	5	5+	4+	5o	5+	6	5	5	5	(4)	3	23
06	5o	5	5+	4+	5o	6-	4	5	5	5	3	3	15
07	5+	5	5+	6-	5o	6-	5	5	6	6	1	1	3
08	6o	5	6-	6o	6-	6+	6	6	6	6	0	1	2
09	6+	5	6o	6o	7-	6-	6	6	6	6	1	2	6
10	4+	4	6-	4o	3+	4+	5	4	4	4	(4)	(5)	39
11	4o	4	4+	4o	4-	4o	4	4	2	4	(5)	(4)	40
12	4o	4	4-	4-	4o	4+	4	4	3	4	(4)	(4)	29
13	4+	4	5-	3+	5o	5o	3	4	5	5	3	(4)	20
14	5-	4	5o	4-	5-	5o	4	4	5	5	(4)	3	21
15	5o	4	6-	5-	5-	5+	4	4	5	5	3	3	16
16	5+	5	6o	4+	5o	6o	5	5	5	5	(4)	3	24
17	6-	5	6o	5o	6+	6o	5	5	5	5	3	2	13
18	6-	5	6-	5-	6o	6o	5	5	5	6	3	3	14
19	5+	5	6o	4+	6-	6-	5	5	5	6	2	2	9
20	5+	6	6-	4o	6-	6-	5	5	5	6	3	3	11
21	5+	6	5+	4o	6+	6-	5	5	6	6	2	1	3
22	5o	5	6-	4-	6-	6-	6	6	6	6	2	2	7
23	6-	5	6o	4o	6+	6+	6	5	5	5	3	1	11
24	5+	5	6o	4o	5+	6-	5	5	5	6	2	3	12
25	6-	5	6-	6-	6o	6-	6	6	6	6	2	2	7
26	5+	6	6-	5-	6-	6-	6	6	6	6	3	3	14
27	6-	6	6-	5+	6-	5+	6	6	6	5	3	(4)	24
28	5o	6	5-	4+	5o	5+	5	5	3	4	(4)	(4)	22
29	5+	6	4+	5+	6-	6-	4	4	4	5	(4)	3	20
30	6-	6	5-	5+	6-	6o	4	4	5	5	2	2	7
31	6-	6	6-	5o	6o	6-	5	5	5	6	3	3	12

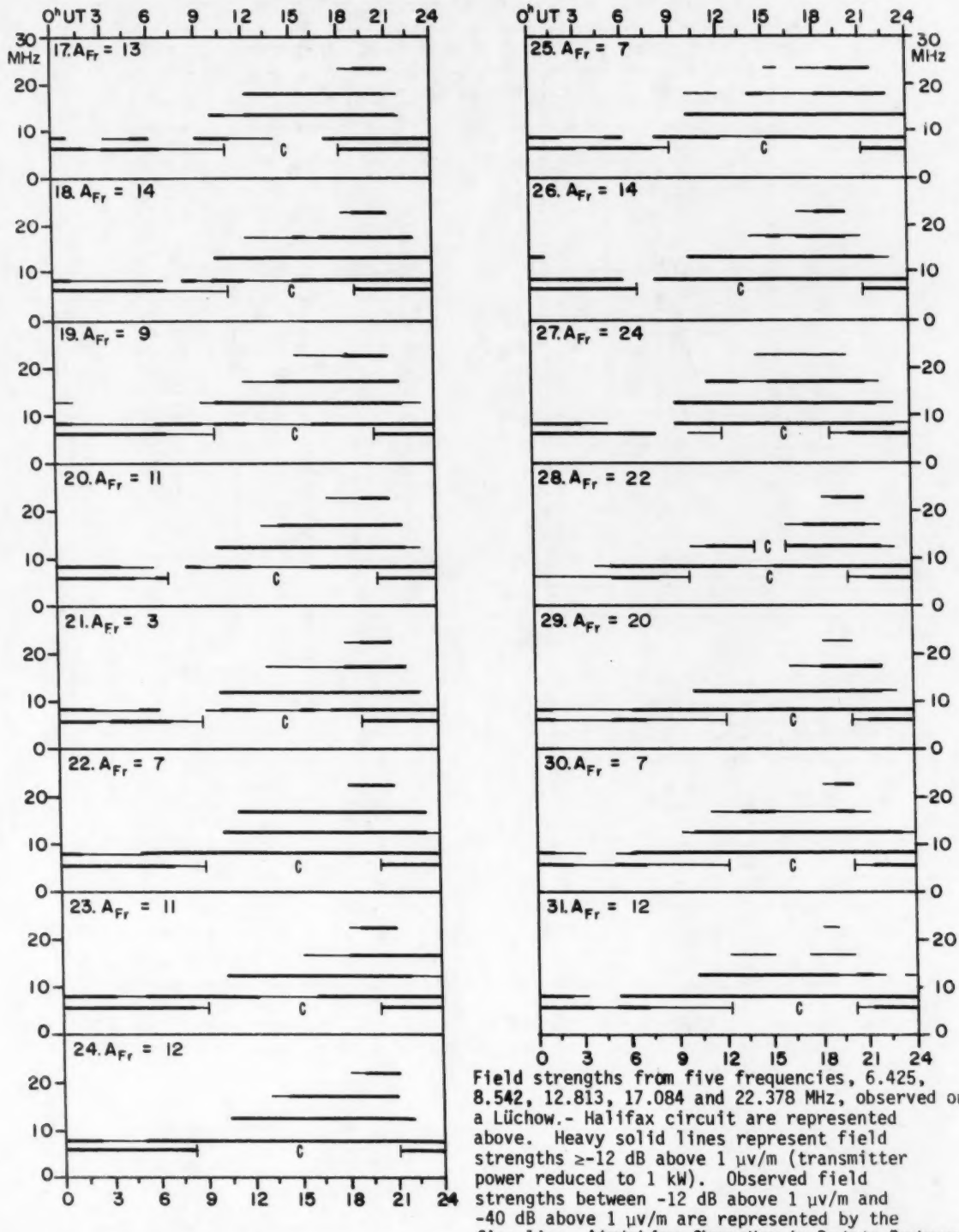
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

MARCH 1975



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

MARCH 1975



Field strengths from five frequencies, 6.425, 8.542, 12.813, 17.084 and 22.378 MHz, observed on a Lüchow.- Halifax circuit are represented above. Heavy solid lines represent field strengths ≥-12 dB above 1 μv/m (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above 1 μv/m and -40 dB above 1 μv/m are represented by the fine line. Adapted from Observations by Deutsche Bundespost

RADIO PROPAGATION QUALITY INDICES

MARCH 1975

Quality Indices calculated for reception at Lüchow

DATE	TOKYO	HALIFAX	MAURITIUS	CANBERRA	BRACKNELL
1	5.3	5.8	5.2	4.1	11.8
2	6.4	6.0	5.4	3.8	11.9
3	6.5	6.8	6.9	4.4	11.3
4	6.2	7.4	7.1	4.7	12.9
5	5.9	6.1	7.2	5.0	12.8
6	4.8	5.7	7.6	4.6	12.1
7	4.5	7.4	7.9	5.0	12.8
8	5.2	8.6	7.1	5.7	13.1
9	5.4	8.2	6.0	5.1	13.3
10	5.2	3.6	5.5	3.7	10.5
11	4.7	1.8	4.8	3.4	9.9
12	4.2	3.2	5.1	4.0	10.4
13	4.4	3.8	5.5	3.9	10.7
14	3.9	4.0	5.1	4.2	10.2
15	4.2	4.8	5.0	4.0	12.1
16	3.9	5.5	4.1	4.2	10.5
17	5.6	6.4	4.9	4.1	11.1
18	5.3	5.8	5.4	3.8	11.9
19	6.0	6.9	5.7	3.7	12.0
20	5.0	5.4	5.0	4.6	11.9
21	6.9	6.0	4.8	4.0	11.1
22	6.6	8.0	4.6	3.8	10.8
23	7.3	7.4	4.8	3.8	10.4
24	6.5	6.6	5.0	5.3	11.0
25	7.4	6.9	5.5	5.0	11.4
26	5.5	7.1	5.3	4.3	11.3
27	5.3	5.9	4.6	4.3	10.9
28	4.9	6.2	3.5	4.5	9.9
29	5.5	5.2	4.6	4.4	10.7
30	5.2	6.9	3.8	4.0	10.2
31	4.9	6.2	3.7	3.7	9.3

The method of calculation of the radio propagation indices changed in July 1974. An absolute quality figure is calculated for a 24-hour period from Tokyo, Halifax, Mauritius (Africa) and Canberra. The figure 0.0 corresponds to a median field strength of -30 dB above 1μV/m (converted into 1 kW and referred to an omnidirectional antenna). The figures 1 to 10 are in steps of 5 dB with the figure 10.0 corresponding to a median field strength of +20 dB above 1μV/m. The field strength of the frequency with the highest value for each hour is used in place of a mean of all recorded frequencies. This is done on the assumption that the optimum frequency would be used for communication.

USCOMM-NOAA-ASHEVILLE--5-30-75--950

AMERICAN REVOLUTION BICENTENNIAL
1776-1976

May 1975 Number 369-Part II

Solar-Geophysical Data comprehensive reports

Data for November 1974–October 1974 & Miscellanea

Explanation of Data Reports Issued as Number 366 (Supplement) February 1975

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Solar - Geophysical Data

NO. 369 MAY 1975

Part II (Comprehensive Reports)

DATA FOR
NOVEMBER 1974
OCTOBER 1974
& MISCELLANEA

NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO

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To standardize referencing these reports in the open literature, the following format is recommended:

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SOLAR - GEOPHYSICAL DATA

No. 369

Issued in two parts

Hope I. Leighton, Editor

J. Virginia Lincoln, Director
Solar - Terrestrial Data Services Division

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	Solar Radio Waves - Fixed Frequencies - Selected	361A 17	362A 18	363A 17	364A 17	365A 16	366A 16	367A 16	368A 16	369A 16
C.3t	43.25, 80 and 160 MHz Selected Bursts (Culgoora)	362A111	363A115	365B106	365A101	366A100	367A103	368A 95	369A100	
C.4a	Solar Radio Spectral Obs. (Fort Davis)	362A104	363A101	364A104	365A 94	366A 94	367A 96	368A 91	369A 95	
C.4b	Solar Radio Spectral Obs. (Boulder)	362A104	363A101	364A104	365A 94	366A 94	367A 96	368A 91	369A 95	
C.4d	Solar Radio Spectral Obs. (Culgoora)	362A104	363A101	365B103	365A 94	366A 94	367A 96	368A 91	369A 95	
C.4e	Solar Radio Spectral Obs. (Weissenau)	362A104	363A101	364A104	365A 94	366A 94	367A 96	368A 91	369A 95	
C.4f	Solar Radio Spectral Obs. (Sagamore Hill)	362A104	363A101	364A104	365A 94	366A 94	367A 96	368A 91	369A 95	
C.4h	Solar Radio Spectral Obs. (Dwingeloo	362A104			365A 94	366A 94	367A 96	368A 91	369A 95	
C.4i	Solar Radio Spectral Obs. (Dürnten)	362A104	363A101	364A104	365A 94	366A 94	367A 96	368A 91	369A 95	
C.4j	Solar Radio Spectral Obs. (Manila)	362A104	363A101	364A104	365A 94	366A 94	367A 96	368A 91	369A 95	
C.5e	Solar X-ray (SMS-1 GOES)				364A 23	365A 20	366A 18	367A 18	368A 18	369A 20
C.6	Sudden Ionospheric Disturbances	362A103	363A 99	364A102	365A 93	366A 93	367A 95	368A 90	369A 94	
D.	Geomagnetic and Magnetospheric Phenomena									
D.1a	Geomagnetic Indices Ci, Cp, Kp, Ap, aa - Selected Days	362A114	363A118	364A113	365A104	366A103	367A106	368A 98	369A104	
D.1ba	27-Day Chart of Kp Indices	362A115	363A119	364A114	365A105	366A105	367A107	368A 99	369A105	
D.1c	27-Day Chart of C9	366A107	366A107	366A107	366A107	366A107				
D.1d	Principal Magnetic Storms	362A117	363A121	364A116	365A107	366A109	367A109	368A101	369A107	
D.1e	Reduced Magnetograms	---	367B 40	368B 44	---					
D.1f	Sudden Commencement and Solar Flare Effects	362A118	363A122	364A118	365A108	366A110	367A110	368A102	369A108	
D.1g	Equatorial Indices Dst	362A116	363A120	364A115	365A106	366A108	367A108	368A100	369A106	
F.	Cosmic Rays									
F.1a	Cosmic Ray Neutron Counts (Deep River)	362A112	364B 42	364A111	365A102	366A101	367A104	368A 96	369A102	
F.1b	Cosmic Ray Neutron Counts (Climax)					366A101	367A104	368A 96	369A102	
F.1e	Cosmic Ray Neutron Counts (Alert)	362A112	364B 42	364A111	365A102	366A101	367A104	368A 96	369A102	
F.1f	Cosmic Ray Neutron Counts (Calgary)	362A112	363A116	364A111	366B 32	366A101	367A104	368A 96	369A102	
F.1g	Cosmic Ray Neutron Counts (Sulphur Mountain)	362A112	363A116	364A111	366B 32	366A101	367A104	368A 96	369A102	
F.1h	Cosmic Ray Neutron Counts (Thule)	363B 47	363A116	364A111	365A102	366A101	367A104	368A 96	369A102	
F.1i	Cosmic Ray Neutron Counts (Kiel)	362A112	363A116	364A111	365A102	366A101	367A104	368A 96	369A102	
F.1j	Cosmic Ray Neutron Counts (Tokyo)	362A112	363A116	364A111	365A102	366A101	367A104	368A 96	369A102	
H.	Miscellaneous									
H.60	IUWDS Alert Decisions	361A 4	362A 4	363A 4	364A 4	365A 4	366A 4	367A 5	368A 4	369A 54
H.62	Abbreviated Calendar Record	367B 44	368B 48	369B 25						

Note: A = Part I, B = Part II.

362A 32 listed under Aug shows that data for August 1974 were contained in *Solar-Geophysical Data* Number 362 - Part I beginning on page 32.

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Hα SOLAR FLARES
Confirmed
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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
681 TEHR	01	0624	0644	0635U	S19	W28	.598	13314	27.2	20	1F	4	C		2.46				F 4
GRP61683	01	1715	1724	1718	N11	E83	.991	13324	7.9	9	-N				.41				1 1 1 2
PALE	01	1715	1724	1717	N12	E82	.988	13324	7.9	9	-N	2	V		.40				DE
PALE	01	1718E	1724	1718U	N11	E85	.995	13324	8.1	6D	-N	2	C		.41				DE
	01	2003	2008	NO FLARE PATROL															
	01	2057	2108	NO FLARE PATROL															
GRP61685	01	2244	2251	2246	N11	E73	.954	13324	7.4	7	--F				.31				1 1 1 2
PALE	01	2244	2251	2246	N12	E73	.954	13324	7.4	7	-F	2	C		.31				DE
PALE	01	2244	2251	2246	N11	E73	.954	13324	7.4	7	-F	3	V		.30				DE
	02	0341	0350	NO FLARE PATROL															
	02	0445	0454	NO FLARE PATROL															
	02	0459	0500	NO FLARE PATROL															
GRP61686	02	1009	1023	1014	S09	W33	.580	13310	30.9	14	--F				.37				2 2 2 3
ATHN	02	1007	1019	1010	S08	W35	.602	13310	27.8	12	-F	1	C	1010	.17	.18			
ATHN	02	1007	1019	1010	S08	W35	.602	13310	27.8	12	-F	3	V		.16				DE
ATHN	02	1008	1021	1013	S10	W32	.573	13310	28.0	13	-F	3	C		.33				DE
HTPR	02	1010	1025	1015	S09	W32	.567	13310	28.0	15	-F		C	1015	.41	.50			
GRP61687	02	1010	1021	1013	N06	E70	.938	13324	7.7	11	--F				.42				2 2 2 3
HTPR	02	1007	1021	1011	N04	E71	.944	13324	7.7	14	-F		C	1011	.31				
ATHN	02	1013	1020	1015	N08	E70	.937	13324	7.7	7	-N	1	C	1015	.52	.99			
ATHN	02	1013	1025	1017	N08	E68	.925	13324	7.5	12	-N	3	C		.50				DE
ATHN	02	1013	1020	1015	N08	E70	.937	13324	7.7	7	-N	3	V		.48				DE
688 HTPR	02	1058	1101	1058	N15	E67	.918	13324	7.5	3	--N		C	1058	.21	.40			2
689 HTPR	02	1113	1132	1114	S23	E35	.691	13318	5.1	19	--F		C	1114	.21	.30			2
GRP61692	02	1455	1515	1506	N12	E65	.904	13324	7.5	20	--F				.31				3 3 3 6
HTPR	02	1450	1514	1504	N14	E63	.889	13324	7.3	24	-F		C	1504	.31	.50			
MCMA	02	1455	1520	1506	N13	E64	.897	13324	7.4	25	-F		C	1506	.31	.70			D
HUAN	02	1459	1512	1507	N14	E64	.897	13324	7.4	13	-F	1	C	1507	.31	.68			
HTPR	02	1528	1522	1521	N03	E70	.939	13324	7.9	2	-F		C	1521	.10	.20			
693 HUAN	02	1612	1616	1613	N10	E70	.937	13324	7.9	4	--F	1	C	1613	.46				2
694 HUAN	02	1623	1643	1634	N05	E68	.926	13324	7.8	20	--F	1	C	1634	.31	.68			2
696 HUAN	02	1755	1800	1758	N19	E68	.926	13324	7.8	5	--F	1	C						2
	02	2001	2009	NO FLARE PATROL															
GRP61697	02	2043	2057	2044	N09	E63	.889	13324	7.6	14	--N				.30				1 1 1 2
PALE	02	2043	2057D	2044	N08	E65	.904	13324	7.7	14D	-N	2	V		.30				DE
PALE	02	2043	2056	2043	N10	E61	.872	13324	7.4	13	-N	2	C		.19				DE
698 PALE	02	2219	2233	2221	N18	E65	.906	13324	7.8	14	--F	2	C		.36				DE 2
	02	2346	2354	NO FLARE PATROL															
	02	2356	0000	NO FLARE PATROL															
GRP61699	03	0101	0138	0104	N09	E57	.837	13324	7.3	7	--F				.63				1 1 1 2
PALE	03	0101	0108D	0104	N10	E59	.855	13324	7.5	7D	-F	3	C		.63				F
PALE	03	0103E	0108D	0106	N08	E55	.817	13324	7.2	5D	-F	3	V		.60				F
GRP61700	03	0121	0133	0122	N10	E56	.827	13324	7.3	12	--F				.55				1 1 1 2
PALE	03	0121E	0129	0121U	N11	E54	.808	13324	7.1	8D	-F	3	V		.40				DE
PALE	03	0122E	0133	0122U	N10	E58	.846	13324	7.4	11D	-F	3	C		.55				DE
	03	0444	0453	NO FLARE PATROL															
GRP61703	03	0714	0723	0717	N12	E64	.897	13324	8.1	9	--F				.62				2 2 2 6
ATHN	03	0714	0720	0717	N10	E65	.904	13324	8.2	6	-N	1	C	0717	.34				
ATHN	03	0714E	0720	0717	N10	E65	.904	13324	8.2	6D	-N	4	V		.33				DE
ABST	03	0715E	0725D	0716	N13	E63	.889	13324	8.0	10D	-F		C	0716	.90	1.80			DJK

Hα SOLAR FLARES
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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP61705	03	0839	0907	0841	N11	E59	.855	13324	7.8	28	-N				.66				3 3 3 7
HTPR	03	0837	0848	0840	N12	E62	.881	13324	8.0	11	-N		C	0840	.21	.40			
ARCE	03	0840	0910	0840	N12	E61	.873	13324	7.9	30	-N		C	0840	.79	1.60			
TEHR	03	0841E	08500	0844U	N08	E60	.864	13324	7.9	90	-F	3	V		.99				F
HTPR	03	0851	0904	0855	N12	E61	.873	13324	7.9	13	-F		C	0855	.21	.40			
HTPR	03	0904	0925	0917	N14	E54	.818	13324	7.4	21	-F		C	0917	.10	.20			
708 HTPR	03	1030	1036	1031	N08	E64	.896	13324	8.2	6	--F		C	1031	.21	.40			5
GRP61709	03	1210	1220	1213	N13	E56	.829	13324	7.7	10	--N				.46				4 4 4 4
HTPR	03	1205	1217	1214	N13	E53	.799	13324	7.5	12	-N		C	1214	.31	.50			
ATHN	03	1210	1221	1212	N12	E58	.847	13324	7.9	11	-N	1	C	1212	.68	.97			
HUAN	03	1213	1219	1213	N13	E56	.829	13324	7.7	6	-F	1	C	1213	.36	.65			E
TEHR	03	1213E	1222	1214U	N14	E57	.839	13324	7.8	90	-N	4	V		.50				DE
	03	1605	1608	NO FLARE PATROL															
	03	1633	1636	NO FLARE PATROL															
GRP61711	03	1742	1750	1745	N14	E49	.758	13324	7.4	8	-B				.70				3 3 3 3
RAMY	03	1741	1750	1745	N15	E52	.791	13324	7.6	9	-B	4	V		.80				DE
RAMY	03	1741	1747	1745	N16	E49	.761	13324	7.4	6	-B	3	C		.56				DE H
PALE	03	1741	1754	1744	N13	E48	.745	13324	7.3	13	-B	3	V		.90				DE H
HUAN	03	1742E	1750	1745	N14	E48	.747	13324	7.3	80	-N	1	P	1745	.41	.62			C
PALE	03	1742	1749	1744	N14	E48	.747	13324	7.3	7	-B	3	C		.81				DE H
GRP61712	03	2038	2055	2047	N09	E55	.817	13324	8.0	17	--F				.60				2 2 2 3
PALE	03	2031	2055	2045	N08	E55	.817	13324	8.0	24	-F	3	C		.55				DE
PALE	03	2031	2053	2044U	N07	E54	.807	13324	7.9	22	-F	3	V		.40				DE
RAMY	03	2044	2055	2048U	N10	E55	.817	13324	8.0	11	-F	2	C		.65				F
	03	2228	2233	NO FLARE PATROL															
GRP61713	04	0540	0552	0543	N07	E51	.775	13324	8.1	12	--F				.17				1 1 1 3
ATHN	04	0540	0552	0543	N09	E52	.786	13324	8.1	12	-F	3	C		.17				DE
ATHN	04	0543	0548	0544	N07	E51	.775	13324	8.1	5	-F	1	C	0544	.17	.20			
ATHN	04	0543	0548	0544	N07	E52	.786	13324	8.1	5	-F	4	V		.16				DE
GRP61714	04	0707	0723	0709	N14	E39	.639	13324	7.2	16	-N				.81				2 2 2 6
ATHN	04	0700	0720	0710	N14	E40	.651	13324	7.3	20	-N	3	C		.50				F
ATHN	04	0705	0715	0709	N11	E40	.646	13324	7.3	10	-N	1	C	0709	.52	.55			
ATHN	04	0705	0715	0709	N11	E40	.646	13324	7.3	10	-N	4	V		.48				F
BUCA	04	0708	0725		N16	E38	.632	13324	7.1	17	-N		C	0710	1.10	1.40			
GRP61715	04	0743	0851	0759	N13	E39	.636	13324	7.2	68	1N				1.57				5 3 3 5
TACH	04	0740	0755	0746	N14	E39	.639	13324	7.2	15	1N		C	0746	1.83	2.39		66	EU
ATHN	04	0741	0850	0746	N11	E39	.633	13324	7.2	69	-B	1	C	0746	.68	1.26			
ATHN	04	0741	0850	0746	N11	E39	.633	13324	7.2	69	-B	4	C		.66				U F
BUCA	04	0747	0851		N14	E40	.651	13324	7.3	64	1N		P	0752	2.21	2.90			E
CATA	04	0755E	08000	0755	N13	E40	.649	13324	7.3	50	1B	3		0755	2.90	3.81		(251)	
TEHR	04	0828E	08370	0830U	N12	E46	.721	13324	7.8	90	1N	1	C		2.32				U
TEHR	04	0828E	08370	0830U	N12	E46	.721	13324	7.8	90	1N	1	V		2.25				U
GRP61716	04	0904	0941	0917	N14	E41	.664	13324	7.5	37	1N				.48				3 3 2 3
KHAR	04	0900E	11150		N13	E41	.662	13324	7.5	1350	2N		V						E
ATHN	04	0907	0931	0917	N14	E38	.626	13324	7.2	24	-F	3	C		.33				DE
HTPR	04	0918E	0938		N13	E41	.662	13324	7.5	200	-N		C	0919	.62	.80			
HTPR	04	0944	0954	0948	N15	E49	.759	13324	8.1	10	-F		C	0948	.31	.40			
GRP61717	04	1002	1031	1010	N13	E36	.623	13324	7.3	29	--F				.59				2 2 2 5
HTPR	04	1002	1030	1005	N12	E38	.621	13324	7.3	28	-F		C	1005	.10	.10			
ABST	04	1013E	10320	1015	N13	E37	.610	13324	7.2	190	-F		P	1015	1.08	1.40			D
718 ATHN	04	1037	1052	1042	S14	W76	.976	13314	26.7	15	--F	3	C		.33				F 3
GRP61719	04	1057	1118	1107	N14	E40	.651	13324	7.5	21	--N				.56				4 4 4 5
ATHN	04	1045	1101	1048	N16	E48	.750	13324	8.0	16	-F	3	C		.33				F
HTPR	04	1057	1125	1106	N14	E38	.626	13324	7.3	28	-N		C	1106	.21	.20			
ATHN	04	1057	1116	1101	N12	E38	.621	13324	7.3	19	-F	1	C	1101	.52	.55			
ATHN	04	1057	1114	1100	N14	E37	.613	13324	7.2	17	-F	3	C		.33				DE
CATA	04	1105E	11150	1115	N13	E37	.610	13324	7.2	100	-B	3		1115	.87	1.09		(234)	
TEHR	04	1105E	11070	1106U	N15	E43	.691	13324	7.7	20	-B	1	C		.62				DE
TEHR	04	1105E	11070	1106U	N15	E43	.691	13324	7.7	20	-B	1	V		.60				DE
720 HTPR	04	1346	1355	1350	N12	E37	.608	13324	7.3	9	--F		C	1350	.10	.10			2
721 HTPR	04	1413	1432	1419	S10	W61	.886	13310	28.0	19	--F		C	1419	.10	.20			1
722 HTPR	04	1519	1524	1519	S10	W61	.886	13310	28.1	5	--F		C	1519	.10	.20			2

Hα SOLAR FLARES
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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY	MIN.		CONF.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH HG	MAX. INT. %	
723 BOUL	04	1534	1548	1536	N10	E34	.563	13324	7.2	14	--F		C	1537	.54	.65			2
	04	1553	1637	NO FLARE PATROL															
GRP61724	04	1701	1734	1708	N12	E45	.709	13324	8.1	33	-F				1.71				3 2 2 3
BOUL	04	1700	1740	1709	N12	E44	.697	13324	8.0	40	1N		C	1709	1.82	2.54			
PALE	04	1702	1728	1707	N11	E45	.708	13324	8.1	26	-F	2	V		1.60				F
PALE	04	1702	1728	1708	N12	E45	.709	13324	8.1	26	-F	3	C		1.35				F
HUAN	04	1717E	17210		N13	E45	.711	13324	8.1	40	-F	1	P						E
GRP61725	04	2042	2046	2042	N13	E38	.623	13324	7.7	4	--F				.23				1 1 1 2
PALE	04	2042E	2046	2042U	N13	E38	.623	13324	7.7	40	-F	3	C		.23				DE
PALE	04	2042E	2046	2042U	N13	E39	.636	13324	7.8	40	-F	3	V		.20				DE
GRP61726	04	2049	2127	2054	N14	E34	.573	13324	7.4	38	--F				1.12				2 2 2 3
BOUL	04	2047	2127	2056	N13	E32	.542	13324	7.3	40	-N		C	2052	1.61	1.89			
PALE	04	2050	20520	2052U	N14	E35	.586	13324	7.5	20	-F	3	C		.62				U
PALE	04	2050	20520	2052U	N14	E35	.586	13324	7.5	20	-F	3	V		.50				U
	04	2245	2248	NO FLARE PATROL															
728 PALE	05	0038	0059	0041	N07	E41	.655	13324	8.1	21	--F	3	C		.46				DE 3
729 ABST	05	0815	09040	0859	S12	W75	.971	13310	27.7	490	1N		P	0859	.99				FJK 3
	05	0905	0915	NO FLARE PATROL															
730 CATA	05	0915E	10000	0950	S11	W73	.962	13310	27.9	450	1B	3		0950	.87			(224)	1
	05	1000	1019	NO FLARE PATROL															
GRP61731	05	1122	1144	1130	N14	E28	.490	13324	7.6	22	-B				1.18				2 2 2 2
HTPR	05	1119	1143	1125	N14	E28	.490	13324	7.6	24	-N		C	1125	.62	.70			E
CATA	05	1125	1145	1135	N13	E28	.486	13324	7.6	20	-B	3		1135	1.73	1.99		(240)	
732 HTPR	05	1225	1245	1240	S14	W78	.983	13310	27.7	20	--F		C	1240	.41				E 2
733 HTPR	05	1320	1355	1326	S14	W78	.983	13310	27.7	35	--F		C	1326	.41				E 3
734 CATA	05	1335	1355	1340	N10	E90	1.000	13329	12.3	20	1B	3		1340	.87			(204)	3
GRP61735	05	1529	1601	1538	S12	W78	.982	13310	30.8	32	1N				.76				3 3 3 3
HTPR	05	1528	15500	1535	S12	W80	.988	13310	27.6	220	-B		C	1535	.52				
PALE	05	1530	1544	1536	S12	W76	.975	13310	27.9	14	1N	3	V		.26				DE
BOUL	05	1539E	1630	1544	S13	W77	.979	13310	27.9	510	1N		C	1544	1.50	4.74			
736 BOUL	05	1640	17000	1649	N08	E31	.516	13324	8.0	200	1N		C	1649	1.93	2.24			2
	05	1718	1732	NO FLARE PATROL															
	05	1735	1743	NO FLARE PATROL															
737 BOUL	05	1910	1923	1913	S11	W78	.982	13310	27.9	13	--N		C	1913	.21	.68			3
738 BOUL	05	1951	2042	2001	S10	W81	.990	13310	27.8	51	--F		C	2001	.32	1.09			1
739 PALE	05	2154	22080	2157	S13	W82	.993	13310	27.8	140	--F	2	C		.27				DE 3
GRP61740	05	2227	2238	2231	S11	W86	.998	13310	30.9	11	--F				.24				2 2 2 3
BOUL	05	2227	2237	2230	S11	W89	1.000	13310	27.3	10	-F		C	2230	.21	.85			
PALE	05	2231E	22390	2231U	S10	W82	.992	13310	27.8	80	-F	2	C		.27				DE
PALE	05	2231E	2238	2231U	S10	W82	.992	13310	27.8	70	-F	3	V		.20				DE
GRP61741	05	2352	0001	2353	S12	W82	.993	13310	30.8	9	--F				.31				1 1 1 2
PALE	05	2352	0001	2353	S12	W82	.993	13310	27.8	9	-F	2	C		.31				DE
PALE	05	2352	0001	2353	S13	W82	.993	13310	27.8	9	-F	3	V		.30				DE
742 PALE	06	0012	0022	0018	S13	W83	.995	13310	27.8	10	--F	3	V		.70				DE 2
743 PALE	06	0213	02200	02200	S12	W85	.997	13310	27.7	70	1B	1	V		.83				DE 2
GRP61744	06	0310	0332	0318	S13	W86	.999	13310	30.7	22	1B				.76				3 3 3 3
CULG	06	0306	0326	0314	S16	W90	1.000	13310	27.4	20	1B		C	0314	.46				
PALE	06	0309	03420	0335	S12	W85	.997	13310	27.8	330	1B	1	C		.72				DE
PALE	06	0313	03420	0320	S12	W85	.997	13310	27.8	290	1B	1	V		.80				DE
TEHR	06	0319E	03290	0320U	S11	W84	.996	13310	27.8	100	1B	2	C		1.03				DE
TEHR	06	0319E	032 90	0320U	S11	W84	.996	13310	27.8	100	1B	2	V		1.00				DE

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	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH MG	MAX. INT. %	
GRP61747	06	0740	0743	0741	S09	W88	1.000	13310	30.7	3	-N				.31				1 1 1 4
TEHR	06	0740E	0743D	0741U	S09	W88	1.000	13310	27.7	3D	-N	2	C		.31				DE
TEHR	06	0740E	0743D	0741U	S09	W88	1.000	13310	27.7	3D	-N	2	V		.30				DE
GRP61749	06	1345	1437	1403	N15	E14	.304	13324	7.6	52	1B				2.52				2 2 2 3
HTPR	06	1345	1425	1400	N14	E14	.294	13324	7.6	40	1B		C	1400	2.06	2.10			EIU
RAMY	06	1404E	1449	1405U	N15	E14	.304	13324	7.6	45D	1B	3	C		2.97				U
61749	06	1415	1442	1421	N15	E12	.279	13324	7.5	27	*1N				3.75				2 2 2 5
LOCA	06	1415E	1440	1415	N15	E11	.268	13324	7.4	25D	2N		P	1415	5.47	5.70			
BOUL	06	1422E	1443D	1427U	N15	E12	.279	13324	7.5	21D	1N		C	1427	2.03	2.08			
GRP61751	06	2158	2209	2200	N08	E12	.219	13324	7.8	11	--F				1.00				1 1 1 2
PALE	06	2158	2209	2200	N08	E11	.203	13324	7.7	11	-F	2	V		1.00				DE
PALE	06	2158	2209	2200	N08	E13	.235	13324	7.9	11	-F	2	C		.77				DE
	06	2250	2255	NO FLARE PATROL															
	07	0424	0439	NO FLARE PATROL															
	07	0514	0534	NO FLARE PATROL															
GRP61752	07	1500	1520	1505	N10	W06	.150	13324	7.2	20	--F				.27				2 2 2 4
HTPR	07	1459	1501D		N10	W05	.139	13324	7.2	2D	-F		C	1501	.21	.20			
BOUL	07	1500	1520	1505	N09	W06	.138	13324	7.2	20	-F		C	1505	.32	.32			
GRP61753	07	1523	1556	1530	N14	W02	.181	13324	7.5	33	--N				.68				4 3 3 4
BOUL	07	1522	1556	1530	N14	W01	.178	13324	7.6	34	-N		C	1530	.86	.86			
MCMA	07	1523	1600	1529	N14	W02	.181	13324	7.5	37	-N		C	1529	.83	.80			EV
HUAN	07	1523	1552	1530	N14	W02	.181	13324	7.5	29	-N	2	C	1530	.36	.37			E
RAMY	07	1543E	1551	1545	N14	W01	.178	13324	7.6	8D	-F	3	C		.51				DE
754 BOUL	07	1935	1947	1938	N12	W05	.167	13324	7.4	12	--F		C	1938	.32	.32			2
GRP61755	07	2102	2115	2107	N12	W05	.167	13324	7.5	13	--F				.33				3 3 3 4
BOUL	07	2055	2115	2107	N12	W04	.159	13324	7.6	20	-F		C	2107	.43	.43			
RAMY	07	2104	2108D	2106U	N12	W08	.198	13324	7.3	4D	-F	2	C		.24				DE
PALE	07	2106	2114	2109	N11	W03	.136	13324	7.7	8	-F	2	C		.31				DE
PALE	07	2106	2114	2109	N11	W03	.136	13324	7.7	8	-F	2	V		.30				DE
GRP61756	07	2213	2227	2217	N13	W03	.168	13324	7.7	14	--F				.59				2 2 2 3
PALE	07	2213	2224	2216	N12	W05	.167	13324	7.6	11	-F	2	C		.63				F
BOUL	07	2213	2230	2217	N13	E00	.160	13324	7.9	17	-F		C	2217	.54	.54			
GRP61758	08	0037	0048	0043	N12	W10	.224	13324	7.3	11	--F				.27				1 1 1 3
PALE	08	0037	0048	0043	N12	W10	.224	13324	7.3	11	-F	2	C		.27				DE
PALE	08	0038E	0048	0041U	N12	W10	.224	13324	7.3	10D	-F	2	V		.25				DE
	08	0318	0333	NO FLARE PATROL															
GRP61759	08	1022	1034	1026	N15	W12	.282	13324	7.5	12	--F				.26				2 2 2 4
HTPR	08	1020	1035	1026	N14	W13	.284	13324	7.5	15	-F		C	1026	.10	.10			
MONT	08	1024	1033	1026	N15	W11	.270	13324	7.6	9	-F		C	1026	.41				E
	08	2207	2219	NO FLARE PATROL															
760 HUAN	10	1437	1449	1439	N06	W38	.615	13324	7.8	12	--F	1	C	1439	.26	.33			D 2
761 HUAN	10	1539	1638	1546	N05	W40	.642	13324	7.7	59	1N	2	C	1546	1.50	1.99			E 3
	11	0339	0340	NO FLARE PATROL															
	11	0429	0441	NO FLARE PATROL															
	11	0445	0500	NO FLARE PATROL															
	11	0548	0624	NO FLARE PATROL															
	11	0628	0635	NO FLARE PATROL															
	11	0650	0705	NO FLARE PATROL															
GRP61763	11	0827	0845	0834	N08	E04	.107	13329	11.7	18	--F				.47				3 3 3 4
HTPR	11	0824	0853	0831	N08	E04	.107	13329	11.6	29	-F		C	0831	.41	.40			
ARCE	11	0830	0840		N08	E04	.107	13329	11.7	10	-F		C	0837	.67	.70			
ATHN	11	0833	0843	0836	N08	E06	.132	13329	11.8	10	-F	1	C	0836	.34	.33			
ATHN	11	0833E	0843	0836	N08	E06	.132	13329	11.8	10D	-F	3	V		.32				DE
ATHN	11	0836E	0843D	0836U	N09	E04	.121	13329	11.7	7D	-F	3	C		.33				DE

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	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	HEMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
764 HTPR	11	0851	0855	0851	N04	W18	.309	13333	10.0	4	--F		C	0851	.21	.20			E 2
GRP61765	11	1624	1633	1627	N04	W22	.374	13333	10.0	9	--N				.43				2 2 2 2
HUAN	11	1624	1633	1626	N04	W23	.390	13333	10.0	9	-N	1	C	1626	.31	.33			
BOUL	11	1624	1633	1628	N04	W21	.358	13333	10.1	9	-N		C	1628	.54	.57			
	12	1500	1610	NO FLARE PATROL															
	12	2009	2023	NO FLARE PATROL															
	12	2041	2058	NO FLARE PATROL															
	12	2102	2118	NO FLARE PATROL															
	12	2131	2148	NO FLARE PATROL															
	12	2152	2210	NO FLARE PATROL															
	13	0338	0440	NO FLARE PATROL															
	13	1527	1530	NO FLARE PATROL															
	13	1728	1735	NO FLARE PATROL															
	13	1741	1758	NO FLARE PATROL															
	13	2108	2110	NO FLARE PATROL															
	14	2137	2142	NO FLARE PATROL															
	14	2214	2242	NO FLARE PATROL															
	15	0450	0500	NO FLARE PATROL															
	15	0800	0807	NO FLARE PATROL															
GRP61767	15	1415	1429	1420	N11	E79	.980	13338	21.5	14	-N				.37				3 3 3 4
RAMY	15	1415E	1429	1418U	N11	E77	.973	13338	21.4	140	-N	3	C		.28				DE
ATHN	15	1415	1430	1417	N10	E80	.984	13338	21.6	15	-N	1	C	1417	.52	1.46			
ATHN	15	1415	1430	1417	N10	E80	.984	13338	21.6	15	-N	3	C		.50				DE
HUAN	15	1416	1428	1426	N11	E80	.984	13338	21.6	12	-N	1	C	1426	.31				
	15	1624	1627	NO FLARE PATROL															
	15	2026	2033	NO FLARE PATROL															
	15	2235	2241	NO FLARE PATROL															
	16	0411	0412	NO FLARE PATROL															
GRP61770	16	1154	1216	1159	N37	W78	.981	13339	10.6	22	--F				.30				2 2 2 5
RAMY	16	1153	1211	1158	N37	W77	.978	13339	10.7	18	-F	4	C		.19				DE H
MONT	16	1155	12200	1200	N37	W78	.981	13339	10.6	250	-F		C	1200	.41				EHK
GRP61771	16	2000	2008	2000	N37	W77	.978	13339	11.1	8	--F				.41				1 1 1 2
PALE	16	2000E	2008	2000U	N37	W79	.983	13339	10.9	80	-F	3	C		.41				DE
PALE	16	2000E	2008	2001U	N37	W75	.972	13339	11.2	80	-F	3	W		.40				DE
	16	2140	2153	NO FLARE PATROL															
	16	2158	2209	NO FLARE PATROL															
GRP61772	16	2249	2302	2250	N37	W79	.983	13339	11.0	13	-N				.34				2 2 2 2
PALE	16	2249E	22500	2249U	N37	W81	.988	13339	10.9	10	-N	2	C		.27				
PALE	16	2249E	22500	2249U	N37	W77	.978	13339	11.2	10	-N	2	W		.20				
MANI	16	2250E	2302	2250U	N37	W78	.981	13339	11.1	120	-N	1		2250	.41	1.04			
GRP61773	17	0218	0236	0222	N19	E63	.896	13338	21.8	18	--F				.27				1 1 1 2
PALE	17	0218	0236	0222	N18	E63	.895	13338	21.8	18	-F	3	C		.27				
PALE	17	0220E	02340	0222	N20	E64	.904	13338	21.9	140	-F	3	W		.25				
	17	1330	1353	NO FLARE PATROL															
	17	2232	2236	NO FLARE PATROL															
	17	2258	2304	NO FLARE PATROL															
	17	2335	2342	NO FLARE PATROL															

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	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
	17	2353	0015	NO FLARE PATROL															
	18	0033	0044	NO FLARE PATROL															
GRP61774	18	0046	0102	0051	N14	E46	.729	13338	21.5	16	--F				.52				2 2 2 2
MANI	18	0046E	0102	0050U	N11	E47	.736	13338	21.6	16D	-F	1		0050	.41	.62			E
PALE	18	0050E	0052	0051	N17	E46	.736	13338	21.5	2D	-F	2	C		.62				DE
PALE	18	0051E	0057D	0051U	N15	E44	.709	13338	21.3	6D	-F	2	C		.49				DE
GRP61775	18	0355	0406	0358	N17	E43	.703	13338	21.4	11	--F				.88				2 2 2 4
HITK	18	0355	0404	0358	N17	E43	.703	13338	21.4	9	-N		C	0358	1.34	1.90			E
MANI	18	0357E	0407	0357U	N17	E42	.691	13338	21.3	10D	-F	1		0357	.41	.57			F
778 RAMY	18	1639	1655	1643	N13	E90	1.000	13343	25.4	16	-N	3	C						1
780 BOUL	18	2228	2233D	2230D	N15	E38	.636	13338	21.8	5D	--F		C	2230	.86	1.08			1
	18	2232	2238	NO FLARE PATROL															
GRP61781	18	2238	2242	2238	N16	E39	.652	13338	21.9	4	--F				.83				1 1 1 1
PALE	18	2238E	2242D	2238U	N15	E39	.648	13338	21.9	4D	-F	2	C		.83				DE
PALE	18	2238E	2242D	2238U	N17	E40	.667	13338	21.9	4D	-F	2	V		.80				DE
	18	2242	2300	NO FLARE PATROL															
782 MANI	18	2335E	2340	2335U	N11	E90	1.000	13343	25.7	5D	-N			2335	.41	1.34			2
GRP61783	19	0056	0108	0058	N02	E59	.857	13341	23.5	12	--F				.39				2 2 2 3
PALE	19	0056	0108	0058	N02	E59	.857	13341	23.5	12	-F	2	C		.36				DE
PALE	19	0056	0108	0058	N03	E59	.857	13341	23.5	12	-F	2	V		.30				DE
MANI	19	0057E	0107D	0057U	N02	E59	.857	13341	23.5	10D	-N	2		0057	.41	.74			
GRP61785	19	0746	0812	0752	N09	E90	1.000	13343	26.1	26	-B								1 1 0 5
ATHN	19	0746	0812	0752	N08	E90	1.000	13343	26.1	26	-B	3	C						DE
ATHN	19	0748	0810	0753	N11	E90	1.000	13343	26.1	22	-B	3	V						DE
786 ATHN	19	0858	0913	0901	N08	E90	1.000	13343	26.1	15	-N	3	C						DE 2
GRP61787	19	1232	1251	1246	N05	E89	1.000	13343	26.2	19	--F				.21				3 2 1 5
HTPR	19	1232	1251	1246	N05	E90	1.000	13343	26.3	19	-F		C	1246	.21				A
ATHN	19	1232	1259	1234	N07	E90	1.000	13343	26.3	27	-N	3	C						DE
HUAN	19	1240E	1250		N05	E88	.999	13343	26.1	10D	-F	1	C						C
GRP61788	19	1834	1858	1842	N18	E25	.486	13338	21.6	24	--F				.38				4 4 3 4
BOUL	19	1830	1904	1841	N18	E25	.486	13338	21.6	34	-F		C	1841	.43	.47			
HUAN	19	1834	1857	1845U	N17	E26	.491	13338	21.7	23	-F	1	C						
PALE	19	1837	1853	1840	N19	E25	.493	13338	21.7	16	-N	3	C		.41				DE
PALE	19	1837	1853	1840	N19	E25	.493	13338	21.7	16	-N	3	V		.40				DE
RAMY	19	1839E	1852D	1841	N18	E25	.486	13338	21.7	13D	-F	3	C		.31				
	19	2248	2256	NO FLARE PATROL															
	20	0331	0340	NO FLARE PATROL															
	20	0345	0418	NO FLARE PATROL															
	20	0431	0434	NO FLARE PATROL															
	20	0447	0455	NO FLARE PATROL															
789 ATHN	20	1333	1400	1349	N12	E74	.961	13343	26.1	27	--F	3	C		.17				F 1
	20	1443	1550	NO FLARE PATROL															
	20	2157	2230	NO FLARE PATROL															
GRP61791	21	0128	0140	0132	N12	E57	.842	13343	25.3	12	--F				.73				2 2 2 4
MANI	21	0128	0140	0131	N10	E59	.858	13343	25.5	12	-F	2		0131	.83	1.48			E
PALE	21	0131E	0139	0133U	N14	E55	.825	13343	25.2	8D	-N	2	C		.62				DE
PALE	21	0131E	0139	0133U	N14	E55	.825	13343	25.2	8D	-N	2	V		.60				DE
GRP61792	21	0147	0205	0148	N03	E33	.544	13341	23.5	18	--F				.34				2 2 2 4
PALE	21	0147	0156D	0148U	N02	E33	.544	13341	23.5	9D	-F	2	C		.27				DE
PALE	21	0147	0154	0148U	N04	E33	.545	13341	23.5	7	-F	2	V		.20				DE
MANI	21	0148E	0205	0148U	N02	E33	.544	13341	23.5	17D	-F	2		0148	.41	.49			E
GRP61793	21	0309	0331	0312	N04	E32	.530	13341	23.5	22	--F				.21				1 1 1 3
PALE	21	0309	0331	0312	N04	E32	.530	13341	23.5	22	-F	2	C		.21				DE
PALE	21	0309	0331	0312	N04	E32	.530	13341	23.5	22	-F	2	V		.20				DE

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
GRP61794	21	0635	0640	0636	N10	E58	.849	13343	25.6	5	--F				.31				1 1 1 3
TEHR	21	0635	0640	0636	N10	E58	.849	13343	25.6	5	-F	4	C		.31				F
TEHR	21	0636E	0640D	0636U	N10	E58	.849	13343	25.6	4D	-F	4	V		.30				F
796 BOUL	21	1612	1626D	1615	N04	E24	.407	13341	23.5	14D	--F		C	1615	.43	.47			3
798 BOUL	21	1854	1901	1857	N06	E49	.755	13343	25.5	7	--F		C	1857	.32	.49			1
799 RAMY	21	2011E	2017D	2014U	N02	E22	.374	13341	23.5	6D	--F	2	V		.28				HDE 2
	21	2310	2313	NO FLARE PATROL															
	21	2314	2318	NO FLARE PATROL															
801 HCMA	22	1600	1620	1605	N02	E10	.174	13341	23.4	20	--F		C	1605	.62	.60			E 3
	22	1951	1953	NO FLARE PATROL															
	23	0313	0320	NO FLARE PATROL															
	23	0325	0335	NO FLARE PATROL															
GRP61803	23	0516	0528	0519	N14	W21	.407	13338	21.6	12	--F				.38				1 1 1 3
TEHR	23	0516	0528	0519	N15	W21	.415	13338	21.6	12	-F	4	C		.38				F
TEHR	23	0518E	0528D	0520U	N14	W21	.407	13338	21.6	10D	-F	4	V		.35				F
GRP61804	23	1119	1126	1121	N06	E25	.427	13343	25.3	7	--N				.34				1 1 1 3
ATHN	23	1119	1126	1121	N06	E25	.427	13343	25.3	7	-N	1	C	1121	.34	.33			
ATHN	23	1119	1126	1121	N06	E25	.427	13343	25.3	7	-F	3	V		.33				F
	23	1404	1429	NO FLARE PATROL															
	23	1749	1757	NO FLARE PATROL															
GRP61805	23	2304	2321	2309	N10	E27	.470	13343	26.0	17	--F				.37				2 2 2 4
PALE	23	2304	2312	2306	N11	E26	.460	13343	25.9	8	-F	2	C		.52				DE
PALE	23	2304	2321	2306	N11	E26	.460	13343	25.9	17	-F	2	C		.52				DE
MANI	23	2311E	2321D	2311U	N09	E27	.466	13343	26.0	10D	-F	1		2311	.21	.23			
	24	0448	0450	NO FLARE PATROL															
	24	0454	0509	NO FLARE PATROL															
GRP61807	24	0606	0622	0612	N02	W11	.191	13341	23.4	16	--F				.98				2 2 2 5
ATHN	24	0605	0623	0614	N03	W10	.175	13341	23.5	18	-F	3	C		.83				U
MANI	24	0606	0612D	0609	N01	W11	.191	13341	23.4	6D	-N	2		0609	1.13	1.16			F
ATHN	24	0610	0622	0612	N06	W12	.220	13341	23.4	12	-F	1	C	0612	.68	.64			
ATHN	24	0610E	0622	0612	N01	W12	.208	13341	23.4	12D	-F	4	V		.64				U
GRP61809	24	0944	1000	0947	N02	W13	.225	13341	23.4	16	--F				.66				1 1 1 3
ATHN	24	0944	1000	0947	N03	W13	.226	13341	23.4	16	-F	2	C		.66				U
ATHN	24	0944	0956	0946	N04	W13	.228	13341	23.4	12	-F	1	C	0946	.52	.50			
ATHN	24	0944	0956	0946	N02	W13	.225	13341	23.4	12	-F	3	V		.48				U
	24	1024	1034	NO FLARE PATROL															
811 HUAN	24	1359	1405	1401	N07	E11	.210	13343	25.4	6	--F	1	C	1401	.31	.32			2
812 HUAN	24	1710	1719	1715	N13	W47	.741	13338	21.2	9	--F	1	C						1
	24	1734	1750	NO FLARE PATROL															
	24	1824	1828	NO FLARE PATROL															
	24	1840	1844	NO FLARE PATROL															
GRP61813	24	2015	2026	2016	N13	W50	.774	13338	21.1	11	--F				.37				2 2 2 3
BOUL	24	2013	2027	2016	N12	W49	.762	13338	21.2	14	-F		C	2016	.32	.49			
HUAN	24	2016	2025		N13	W51	.785	13338	21.0	9	-F	1	C	2022	.41	.65			
814 BOUL	24	2119	2132	2124	N10	W46	.725	13338	21.4	13	--F		C	2124	.11	.16			3
815 MANI	25	0028	0045	0038	N12	W51	.784	13338	21.2	17	--F	2		0038	.52	.82			E 2
	25	0802	0811	NO FLARE PATROL															
	25	1619	1627	NO FLARE PATROL															
	25	1642	1650	NO FLARE PATROL															

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OBSERV-ATORY	OBSERVED UT				LOCATION						DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	NOAA PLAGE REGION	CMP DAY		MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH HG	MAX. INT. %	
	25	1655	1656	NO FLARE PATROL																
	25	1714	1727	NO FLARE PATROL																
	25	1858	1903	NO FLARE PATROL																
	25	1907	1918	NO FLARE PATROL																
	25	2155	2205	NO FLARE PATROL																
	25	2238	2240	NO FLARE PATROL																
	26	0619	0621	NO FLARE PATROL																
	26	0631	0650	NO FLARE PATROL																
	26	0710	0735	NO FLARE PATROL																
818 MONT	26	0818	0825	0821	N06	E03	.094	13343	26.6		7	--F		C	0821	.21				H 2
819 HTPR	26	0847	0900	0848	N06	E02	.085	13343	26.5		13	--F		C	0848	.10	.10			2
822 RAMY	26	1422	1429	1424	N11	W68	.928	13338	21.5		7	--F	3	C		.23				DE 3
	26	2233	2300	NO FLARE PATROL																
GRP61824	27	0811	0817	0814	N16	W82	.990	13338	21.2		6	-N				.89				2 2 2 2
ATHN	27	0810	0816	0813	N15	W78	.978	13338	21.5		6	-N	1	C	0813	.68	1.52			
ATHN	27	0810E	0816	0813U	N15	W78	.978	13338	21.5		60	-N	3	C		.66				F
ATHN	27	0810E	0816	0813U	N15	W78	.978	13338	21.5		60	-N	3	V		.64				F
ABST	27	0812	0817	0815	N16	W85	.996	13338	21.0		5	1N		C	0815	1.10			47	AFJ
	27	2320	2331	NO FLARE PATROL																
	28	0145	0150	NO FLARE PATROL																
828 ATHN	28	1133	1140	1136	N05	W35	.576	13343	25.9		7	--F	1	C	1136	.17	.16			3
	28	1621	1704	NO FLARE PATROL																
GRP61830	29	0157	0235	0201	N08	W46	.723	13343	25.6		38	-B				1.50				2 2 2 3
MITK	29	0155	0240	0201	N08	W45	.711	13343	25.7		45	1N		C	0201	2.06	2.90			E
VORO	29	0158	0229	0201	N07	W46	.722	13343	25.6		31	-B		C	0201	.93	1.30		62	EJ
	29	2021	2032	NO FLARE PATROL																
GRP61832	30	0551	0614	0557	N03	W52	.788	13343	26.3		23	-B				1.21				2 2 2 6
MITK	30	0551	0614	0556	N03	W52	.788	13343	26.3		23	-B		C	0556	1.24	2.00			EH
ABST	30	0557E	0614	0558	N03	W52	.788	13343	26.3		170	-N		P	0558	1.18	1.90		52	BF
	30	1407	1412	NO FLARE PATROL																

In the importance column "--" signifies the subflare has been confirmed by the NOAA grouping program but is not included in the I.A.U. Quarterly Bulletin on Solar Activity. These subflares are also not included in the Flare Index below.

DAILY FLARE INDICES

Date	Flare Index	HR OBS	Date	Flare Index	HR OBS	Date	Flare Index	HR OBS
741101	32.83	23.7	741112	0.00	21.5	741122	0.00	24.0
741102	0.00	23.4	741113	0.00	22.5	741123	0.00	23.2
741103	4.89	23.7	741114	0.00	23.5	741124	0.00	23.1
741104	33.38	23.2	741115	0.72	23.5	741125	0.00	22.9
741105	43.22	23.1	741116	0.61	23.6	741126	0.00	22.8
741106	40.71	23.9	741117	0.00	23.0	741127	4.20	23.6
741107	0.00	23.4	741118	1.76	23.4	741128	0.00	23.2
741108	0.00	23.5	741119	1.69	23.9	741129	11.68	23.3
741110	11.88	24.0	741120	0.00	21.5	741130	7.73	23.8
741111	0.00	22.6	741121	0.00	23.9			

When no Flare Index is given, it is 0 for that day.

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OBSERVATORY	OBSERVED UT				LOCATION					DURATION — MIN.	IMPORTANCE	OBS. COND.	OBS. TYPE	MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	McMATH PLAGE REGION	CMP DAY					TIME — UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
680 MITK	01	0441	0446		N11	E90	1.000	13324	7.9	5	1N		P	0446	1.13				4
682 HTPR	01	1243	1257	1248	S04	W15	.295	13310	28.4	14	-F		C	1248	.21	.20			D 5
GRP61684	01	1754	1806	1755	N12	E80	.983	13324	7.7	12	-N				.26				1 1 1 4
PALE	01	1754	1806	1755	N12	E80	.983	13324	7.7	12	-N	2	C		.26				DE
PALE	01	1754	1806	1755	N12	E80	.983	13324	7.7	12	-N	2	V		.25				DE
690 HTPR	02	1144	1205	1155	N14	E69	.931	13324	7.7	21	-F		C	1155	.10	.20			6
691 HTPR	02	1403	1405	1404	N08	E63	.889	13324	7.3	2	-F		C	1404	.10	.20			6
695 HUAN	02	1729	1737	1731	N11	E63	.889	13324	7.5	8	-F	1	C	1731	.46	1.02			4
GRP61701	03	0643	0647	0644	N05	E65	.905	13324	8.2	4	-N				.17				1 1 1 5
ATHN	03	0643	0647	0644	N05	E65	.905	13324	8.2	4	-N	4	V		.17				DE
ATHN	03	0643	0647	0644	N05	E65	.905	13324	8.2	4	-N	1	C	0644	.17				
702 ABST	03	0659E	0705	0701	N15	E58	.848	13324	7.6	6D	-F		P	0701	.99	1.70			EJ 8
704 HTPR	03	0814	0818	0814	N14	E62	.882	13324	8.0	4	-F		C	0814	.10	.20			5
706 HTPR	03	0942	0945	0944	N14	E54	.810	13324	7.5	3	-F		C	0944	.10	.20			6
707 HTPR	03	0958	1013	1008	N14	E54	.810	13324	7.5	15	-F		C	1008	.10	.20			5
710 HUAN	03	1412	1424	1414U	N13	E54	.809	13324	7.6	12	-F	1	C	1414	.46	.79			E 9
GRP61727	04	2318	2323	2320	S07	W69	.938	13310	30.8	5	-F				.21				1 1 1 4
PALE	04	2318E	2323	2320	S07	W69	.938	13310	27.8	5D	-F	3	C		.21				
PALE	04	2318E	2323	2320	S07	W69	.938	13310	27.8	5D	-F	3	V		.20				
745 ABST	06	0558E	06290	0606	S10	W86	.998	13310	27.8	31D	1N		P	0606	1.08				ADJK 6
746 TEHR	06	0704E	07120	0706U	S09	W87	.999	13310	27.8	8D	-N	3	V		.31				DE 6
GRP61748	06	1217	1234	1223	S13	W90	1.000	13310	30.8	17	-B				.21				2 2 1 2
RAMY	06	1216	1253	1225	S12	W90	1.000	13310	27.8	37	-B	3	V						
HTPR	06	1217	1228	1221	S12	W90	1.000	13310	27.8	11	-B		C	1221	.21				A
RAMY	06	1218	12390	1222	S14	W90	1.000	13310	27.8	21D	-B	3	C						
750 BOUL	06	2105	2133	2121	S10	W81	.990	13310	28.8	28	-F		C	2121	.11	.37			4
GRP61757	07	2240	2245	2242	N17	W06	.250	13324	7.5	5	-F				.20				1 1 1 3
PALE	07	2240	2245	2243	N17	W06	.250	13324	7.5	5	-F	2	C		.19				DE
PALE	07	2241E	2245	2242U	N17	W06	.250	13324	7.5	4D	-F	2	V		.20				DE
762 BOUL	10	2059	2108	2104	N12	W44	.699	13324	7.6	9	-F		C	2104	.32	.45			6
GRP61766	15	0556	0614	0602	N12	E87	.998	13338	21.8	18	1F				.88				2 2 2 6
MANI	15	0556	0614	0601	N12	E86	.997	13338	21.7	18	1N	2		0601	.93	2.70			F
TEHR	15	0600E	06120	0603U	N11	E87	.998	13338	21.8	12D	1F	4	V		.83				F
GRP61768	16	0600	0609	0603	N16	E75	.965	13338	21.9	9	-F				.34				1 1 1 6
ATHN	16	0600	0609	0603	N17	E75	.965	13338	21.9	9	-F	1	C	0603	.34	.70			
ATHN	16	0600	0609	0603	N15	E75	.965	13338	21.9	9	-F	2	V		.33				DE
769 MONT	16	1139	1146	1140	N37	W78	.981	13339	10.6	7	-F		C	1140	.41				EH 5
776 MANI	18	0736E	07400	0737	N17	E45	.725	13338	21.7	4D	-F	1		0737	.21	.30			9
1 STATIONS REPORTING GROUP 61777. 5 STATIONS OBSERVING AND NOT REPORTING.																			
GRP61777	18	1227	1332	1230	N10	E90	1.000	13343	25.3	65	-N								1 1 0 6
ATHN	18	1227	1332	1230	N10	E90	1.000	13343	25.3	65	-N	1	C						
ATHN	18	1227	1332	1230	N10	E90	1.000	13343	25.3	65	-N	4	V						DE
777 ATHN	18	1226	1337	1236	N12	E90	1.000	13343	25.3	71	+-N	4	C						DE 6
779 HCMA	18	1841	1915	1844	N11	E90	1.000	13343	25.5	34	1F		C	1844					AR 5
784 MANI	19	0450E	0501	0454	N12	E90	1.000	13343	26.0	11D	-N	2		0454	.41	1.34			5
GRP61790	21	0125	0131	0125	N04	E33	.545	13341	23.5	6	-F				.21				1 1 1 4
PALE	21	0125E	01310	0125U	N04	E33	.545	13341	23.5	6D	-F	2	C		.21				DE
PALE	21	0125E	01310	0125U	N04	E33	.545	13341	23.5	6D	-F	2	V		.20				DE
795 HTPR	21	1403	1405	1405	N09	E52	.790	13343	25.5	2	-F		C	1405	.21	.30			D 5
797 RAMY	21	1814E	18240	1816	N04	E23	.391	13341	23.5	10D	-F	2	V		.33				3

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OBSERV-ATORY	OBSERVED UT				LOCATION					DURA-TION	IM-POR-TANCE	OBS.		MEASUREMENTS					REMARKS
	DATE NOV	START	END	MAX. PHASE	APPROX. LAT.	APPROX. MER. DIST.	CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY	MIN.		COND.	TYPE	TIME UT	MEAS. AREA Sq. Deg.	CORR. AREA Sq. Deg.	MAX. WIDTH Hα	MAX. INT. %	
800 MANI	22	0137	01450	0140	N14	W05	.224	13338	21.7	80	-F	2		0140	.41	.42			5
802 MANI	23	0500E	0520	0504U	N01	E02	.038	13341	23.4	200	-N	2		0504	.21	.31			4
806 MANI	24	0212	0225	0215	N06	E22	.380	13343	25.7	13	-F	2		0215	.83	.89			3
808 ATHN	24	0623	0651	0637	N07	E18	.320	13343	25.6	28	-F	3	C		.66				F 5
GRP51810	24	1133	1153	1139	N02	W14	.242	13341	23.4	20	-N				.48				1 1 1 3
ATHN	24	1133	1153	1140	N03	W14	.243	13341	23.4	20	-N	2	C		.33				U
ATHN	24	1135	1147	1139	N02	W15	.259	13341	23.4	12	-N	2	V		.48				U
ATHN	24	1135	1147	1139	N02	W15	.259	13341	23.4	12	-F	1	C	1139	.52	.50			
816 MANI	25	0045	0110	0100	N13	W49	.764	13338	21.4	25	-N	2		0100	1.03	1.59			H 2
817 MANI	25	0200E	0210	0200U	N14	W51	.787	13338	21.3	100	-N	2		0200	.83	1.31			3
820 HTPR	26	1042	1056	1050	N06	E01	.080	13343	26.5	14	-F		C	1050	.10	.10			7
821 MONT	26	1214	1224	1218	N02	W41	.656	13341	23.4	10	-F		C	1218	.41				4
823 ABST	27	0614	06230	0618	N17	W80	.985	13338	21.3	90	-F		P	0618	.72				DJ 4
825 ABST	27	0858E	0902	0858	N14	W83	.992	13338	21.1	40	1F		P	0902	1.08				DJ 5
826 HTPR	27	0927	0929	0928	N05	W13	.233	13343	26.4	2	-F		C	0928	.10	.10			5
827 HTPR	27	1228	1320	1246	S13	W15	.354	13348	26.4	52	-F		C	1246	.31	.30			5
GRP51829	28	1744	1801	1748	N04	W38	.616	13343	25.9	17	-F				.45				1 1 1 4
PALE	28	1744	1801,	1748	N04	W40	.643	13343	25.7	17	-F	3	C		.45				DE
PALE	28	1744E	1753	1744	N05	W36	.590	13343	26.0	90	-F	3	V		.20				DE
831 MONT	29	0916	0921	0917	N09	W51	.781	13343	25.6	5	-F		C	0917	.21				4

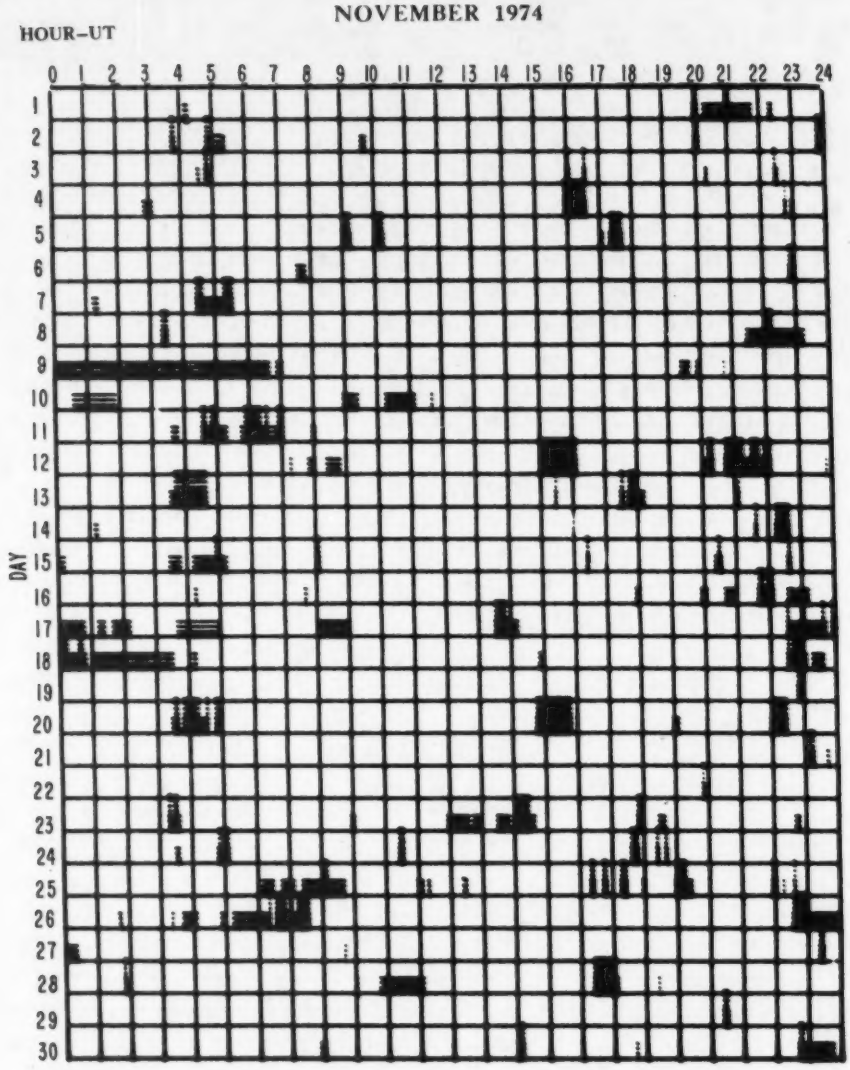
Note:
A line of explanation has been added before each flare event having more than one maxima. The total number of stations reporting some part of the event is given. The number of stations observing at the time of the principal maximum but not reporting the event is given in the second statement. Care should be exercised in utilizing the numbers in the remarks column. The first number is the number of stations reporting the individual maximum, and not the total number of stations reporting some part of the flare event. The last number is the number of stations reporting at the time of the individual maximum and not necessarily the total number of stations observing during the flare event. GRP numbers may appear several times in order to indicate secondary maxima. An asterisk beside an importance indicates a secondary maximum. The word "GRP" has also been omitted to aid in pointing to this condition.
When it is impossible to determine the time of Maximum Phase from the individual reports the time of Area Measurements is used. This time appears in parentheses. For Flares reported by only one station the last 3 digits of the group number appear to the left of the station code.

A = Eruptive prominence whose base is less than 90° from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by a high speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the calcium II lines H and K.
P = Flare shows helium D_3 in emission.
Q = Flare shows the Balmer continuum in emission.
R = Marked asymmetry in Hα line suggests ejection of high velocity material.
S = Brightness follows disappearance of filament (same position).
T = Region active all day.
U = Two bright branches, parallel (||) or converging (Y).
V = Occurrence of an explosive phase: important and abrupt expansion in about a minute with or without important intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide Hα line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

INTERVALS OF NO FLARE PATROL OBSERVATION

FOR PRECEDING SOLAR FLARE TABLE

NOVEMBER 1974



Observatories included in total patrol:

Abastumani	Culgoora	Kiev	Mitaka	Tehran
Arcetri	Haute Provence	Kodaikanal	Monte Mario	Upice
Athenes	Herstmonceux	Locarno	Palehua	Voroshilov
Boulder	Huancayo	Lvov	Ramey	Wendelstein
Bucharest	Hurbanovo	Manila	Tachkent	Zürich
Catania	Kharkov	McMath-Hulbert		

Times of no flare patrol are shown by the shaded area for each day divided into times of no cinematographic patrol (bottom half of day) and times of neither visual nor cinematographic patrol (top half of day).

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1974

NOV 1974	FREQUENCY STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
1	2800 OTTA	27F	1425		195	.8	0.7		
	2800 OTTA	24	1425	1500	35	.8	0.4		
	2800 OTTA	24P	1500		145	.8			
	2800 OTTA	26	1725	1740	15	- .8	-0.4		
	2695 PENT	21	2043	2150	100	1.8	0.9		
	2800 OTTA	20	2056	2058.5	28	2.6	1.1		
2	2800 OTTA	25	1240	2000	440	3.8			
	930 BORD	5	1253	1253.7	2	7.0	3.0		
	2800 OTTA	20	1255		125	2.8	1.6		
	2800 OTTA	20	1612	1620	30	1.6	0.8		
	2800 OTTA	1	1727	1729	8	.8	0.4		
	2800 OTTA	22	1745	1840	75	1.8	0.9		
	7000 SAOP	1	1808.5	1808.7	1.8	14.7	6.8		
	2800 OTTA	1	1949	1949.5	1	1.6	0.8		
	2800 OTTA	24P	2000		60	3.8			
	2695 PENT	24O	2100	2125	25	5.0	2.5		
	2695 PENT	24P	2125		100 D	50.0			
3	9400 TYKW	5	0100	0104	45	4.0	2.0		
	3750 TYKW	5	0101	0104	35	2.0	1.0		
	9400 TYKW	5	0321	0323	20	3.0	1.0		
	3750 TYKW	5	0322	0322.8	1.5	5.0	2.0		
	2000 TYKW	5	0322	0322.6	4	3.0	1.0		
	1000 TYKW	5	0322	0323	3	.8	0.3		
	3750 TYKW	29	0323.5		25	2.0	1.0		
	260 ONDR	45	1105	1105	1.5	30.0			
	15400 SGMR	3	1741.7	1742.1	4	38.0	11.4		
	9400 HUAN	4	1741.8	1742.2	.6	67.5	24.8		
	8800 PALE	3	1741.5	1742.3	4.3	79.0	24.0		
	8800 SGMR	3	1741.7	1742.2	4.7	69.0	20.7		
	7000 SAOP	8	1741.6	1742.2	.8	102.7	40.0		
	4995 SGMR	3	1741.8	1742.2	5.4	46.5	14.0		
	2800 OTTA	25	1741	1810	29	1.8	0.9		
	2800 OTTA	3	1741.2	1742	1.3	19.0	9.5		
	2700 PENN	3	1741.8	1742.6	3.6	15.9	2.5		
	2695 SGMR	3	1741.4	1742.2	5.6	19.1	5.7		
	1415 PALE	3	1741.3	1742.2	4.5	10.0	3.0		
	1415 SGMR	3	1741.7	1742.2	7.2	10.1	3.0		
	606 SGMR	40	1741.5	1741.9	4.2	15.2	4.6		
	410 SGMR	48	1741.7	1742.6	3.9	2474.0	740.0		
	10700 PENN	3	1742	1742.6	3.4	57.1	8.7		
	7000 SAOP	29	1742.4		1.2				
	2800 OTTA	29	1742.5	1742.5	5	1.8	0.7		
	245 SGMR	6	1742.3	1742.7	5.3	191.0	57.0		
	2800 OTTA	24P	1810		290 D	1.8			
	2800 OTTA	20	1850	1920	110	1.8	1.2		
	2800 OTTA	3	2043	2045	3	20.0	7.0		
	2695 BOUL	8	2043	2046	6	18.0	7.0		
	1420 BOUL	3	2043	2045	2	3.0	1.0		
	2700 PENN	3	2044.2	2045.4	3.6	17.5	3.5		
	2800 OTTA	29	2046	2046	8	1.8	0.9		
	2695 PENT	20	2120	2155	60	1.8	0.9		
	3750 TYKW	45	2312.5	2315.3	6	6.0	3.0		
	2000 TYKW	5	2315	2315.9	2	5.0	2.0		
	1000 TYKW	5	2315	2315.9	2	3.0U	1.0U		
4	3750 TYKW	5	0310	0340	80	2.0	1.0		
	2000 TYKW	5	0320	0340	60	2.0	1.0		
	9100 GORK	20	0637	0647	20	6.0	2.6		
	8800 ATHN	20	0741.8	0744.4	15	9.5	5.7		
	6100 KISV	3	0741	0744.2	16	17.0			
	4995 ATHN	3	0741.8	0744.4	18.2	15.5	4.7		
	3000 BERL	4	0741.5	0744.1	8.5	8.8	1.9		
	2950 GORK	3	0741.8	0744.9	3.5	12.1	3.6		
	2695 ATHN	20	0741.8	0744.3	15.9	15.9	3.0		
	1470 BERL	45	0741.5	0744	4	2.3	1.1		
	1415 ATHN	20	0741.8	0744.6	16.2	16.2	2.8		
	9100 GORK	22	0742	0744	8	11.7	4.1		
	9500 BERL	1	0743.5	0744.3	6.5	7.7	2.6		
	9100 GORK	22	0812	0826	36	5.9	3.7		
	950 GORK	3	0909.5	0909.6	1.8	2.6	1.0		
	930 BORD	45	0909	0909.6	1	8.0	2.0		
	650 GORK	4	0909.5	0909.9	1.6	7.0	2.0		
	2800 OTTA	20	1355		75	1.4	0.7		
	18 MCMA	6	1605	1607	4			2	
	2800 OTTA	20	1700	1720	100	3.6	2.2		
	1420 BOUL	45	1702.5	1706	4.5	3.0	1.0		
	2695 PENT	24O	2040	2057	17	1.8	0.9		
	2695 PENT	24P	2057		120 D	1.8	0.9		
	100 HIRA	45	2339.5	2344.9	7	80.0	30.0		
5	100 GORK	41	0829.4	0832.8	5.4	1400.0			
	100 GORK		0829.4	0835.1		40.0			
	260 ONDR	45	1131	1132	2.5	15.0			
	29 UPIC	45	1131	1131.5	2.5				
	10700 PENN	45	1532.8	1535.3	11.2	321.0	55.5		
	4995 BOUL	45	1532.5	1535	18.5	111.0	32.0		
	1420 BOUL	45	1532.5	1546	19	76.0	17.0		
	1415 SGMR	4	1532.3	1534.9	17.4	192.0	57.6		

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1974

NOV 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	35000	SGMR	47	1533.4	1535.3	6.2	2481.0	1182.0		
	15400	SGMR	47	1533.7	1535.3	13.6	936.0	281.0		
	8800	SGMR	4	1533.8	1535.4	17.6	293.0U	89.0U		
	7000	SAOP	46	1533.8	1535.4	14.6	268.8	46.3		
	7000	SAOP		1533.8	1535.4	5.7	268.8	100.8		
	7000	SAOP		1539.5	1540	2	29.0	4.6		
	7000	SAOP		1541.5	1541.8	2.9	40.5	5.8		
	7000	SAOP		1545.3	1545.3	3.8	5.8			
	4995	SGMR	4	1533.7	1535.4	15	124.0	37.1		
	2800	OTTA	46	1533.7	1535.3	13.5	100.0	17.0		
	2800	OTTA		1533.7	1535.3	2.3	100.0			
	2800	OTTA		1536	1536.3	3.5	43.0			
	2800	OTTA		1539.5	1540	1.8	16.6			
	2800	OTTA		1541.3	1541.8	5.9	22.0			
	2700	PENN	45	1533.8	1535.6	14.4	85.2	15.7		
	2695	SGMR	4	1533.8	1535.4	20.5	93.9	28.2		
	930	BORD	45	1533	1535	15	243.0	25.0		
	37000	SLOU	4	1534.9	1535.5	2	1760.0			
	2695	BOUL	45	1534.5	1536 U	18.5	52.0U	17.0U		
	1420	ARCE	4	1534.2	1535.1	2.2				
	606	SGMR	47	1534.5	1536.7	15.4	2000.0	600.0		
	410	SGMR	49	1534	1537.2	14	2300.0	690.0		
	245	SGMR	49	1534.8	1535.2	19.9	1421.0	568.4		
	1420	ARCE	30	1536.4	1536.9	8				AT SUNSET
	1420	ARCE	3	1539.9	1540.2	1.2				
	1420	ARCE	3	1541.5	1541.8	.7				
	10700	PENN	29	1544	1544	27	8.9	4.5		
	2700	PENN	29	1548.2	1548.2	25.8	1.8	0.9		
	2800	OTTA	27A	1552		90	1.2	1.1		
	2800	OTTA	24	1552	1555	3	1.2	0.6		
	2800	OTTA	24P	1555		75	1.2			
	18	MCMA	6	1637	1638	2			1	
	2800	OTTA	2	1644.5	1645.9	2	5.8	2.9		
	2700	PENN	1	1644.4	1645.8	11.2	5.3	1.0		
	1420	BOUL	3	1644	1646	2.5	3.0	1.0		
	2695	BOUL	3	1645	1646.5	3.5	6.0	2.0		
	2800	OTTA	29	1646.5	1646.5	17	2.8	1.4		
	2800	OTTA	26	1710	1722	12	1.2	0.6		
	2800	OTTA	1	1740	1740.5	4	1.6	0.7		
	18	MCMA	6	1911	1912	2			1	
	18	MCMA	6	2104	2107	4			2	
	19000	SLOU	4	1534.5	1535.7	4	1223.0			
6	3750	TYKW	5	0102	0108	25	2.0	1.0		
	9400	TYKW	5	0105	0108	9	6.0	3.0		
	606	MANI	2	0106.7	0107.1	1	10.1	4.2		
	1000	TYKW	42	0131	0131.6	7	10.0	0.6		
	9400	TYKW	45	0308	0310.7	6	26.0	7.0		
	8800	MANI	4	0308.4	0310.8	4.1	20.5	6.3		
	4995	MANI	4	0308.4	0312	6	18.5	7.0		
	3750	TYKW	45	0308	0310.7	7	25.0	7.0		
	2695	MANI	4	0308.4	0310.8	6.4	23.3	9.7		
	2000	TYKW	45	0308	0310.7	7	30.0	9.0		
	1415	MANI	40	0308.1	0311.8	6.7	114.0	15.0		
	1415	PALE	45	0308.3	0310.9	5.9	110.0	45.0		
	1415	PALE	45		0311.6		150.0			
	1415	PALE	45		0312.5		49.0			
	1000	TYKW	45	0308	0311.8	7	120.0	25.0		
	8800	PALE	4	0309.5	0310.6	3.2	18.0	5.0		
	606	MANI	40	0309	0313	6.3	134.0	21.2		
	200	HIRA	45	0311	0342	45	25.0	10.0		
	100	HIRA	45	0312.3	0312.5	1.5	320.0	100.0		
	8800	MANI	4	0313.7U	0339	40.3U	66.0	31.6U		
	9400	TYKW	28	0316	0319.4	10	9.0	4.0		
	100	HIRA	45	0316.5		15.5		200.0		
	100	HIRA		0316.5	0317.7		1000.0D			
	100	HIRA		0316.5	0320.3		880.0			
	100	HIRA		0316.5	0327		830.0			
	4995	MANI	4	0317.7	0338.6	42.3	117.0	30.8		
	2695	MANI	4	0317.7	0338.3	42.3	116.0	29.1		
	2000	TYKW	28	0317	0319.5	8	7.0	3.0		
	1415	MANI	4	0317.7	0338.2	43.3	102.0	20.0		
	1415	PALE	1	0317.8	0319.3	2.8	5.0	2.0		
	1000	TYKW	28	0317	0325.1	10	27.0	5.0		
	3750	TYKW	28	0318	0319.4	8	13.0	6.0		
	606	MANI	47	0320.8	0337.6	36.3	515.0	129.0		
	500	HIRA	45	0321	0338	28	160.0	50.0		
	1415	PALE	22	0323.2	0342 U	U	92.0	53.0U		
	2000	TYKW	45	0325	0338.1	55	150.0	25.0		
	9400	TYKW	45	0326	0338.2	35	85.0	30.0U		
	8800	PALE	22	0326.7	0339 U	U	85.0	51.0U		
	3750	TYKW	45	0326	0338.2	35	118.0	40.0		
	1000	TYKW	45	0327	0333.7	50	450.0	70.0		
	9400	TYKW	29	0401		110	8.0	4.0		
	3750	TYKW	29	0401		110	6.0	3.0		
	9500	BERL	22	1207	1353	143 U	26.0			
	550	KIEV	24	1217.7	1221	12	30.0			
	2695	SGMR	22	1230.9	1235.3	12.4	11.4	6.8		
	1415	SGMR	46	1230.7	1234.2	8.4	12.2	3.2		
	1415	SGMR	46		1235		15.8			

SOLAR RADIO EMISSION
OUTSTANDING OCCURRENCES

NOVEMBER 1974

NOV 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
	15400	SGMR	22	1231.8	1238	11.6	37.2	22.3		
	4995	SGMR	22	1231.1	1234	14.3	10.3	6.2		
	8800	SGMR	22	1232.7	1235.7	12.9	13.8	8.3		
	2700	PENN	45	1232.7	1234.3	4.6	10.5	3.8		
	1415	ATHN	4	1232.8	1235.4	4	10.9	3.3		
	930	BORD	45	1232	1235	12	113.0	6.0		
	808	ONDR	45	1232	1234.5	5	110.0			
	606	SGMR	3	1232.6	1234.1	3.5	13.8	4.1		
	550	KIEV	6	1232.5	1234	5	35.0			
	536	ONDR	45	1232.5	1243	13	40.0			
	410	SGMR	6	1232.9	1243.3	20.1	43.7	8.7		
	260	ONDR	45	1232	1235.5	14	30.0			
	245	SGMR	6	1233.3	1235.4	19.4	11.3	2.3		
	8800	ATHN	1	1234	1235.4	2.5	7.2	2.2		
	4995	ATHN	1	1234	1235.4	2.2	6.2	1.9		
	2695	ATHN	1	1234	1235.4	2.8	4.6	1.4		
	113	POTS	45	1234	1358	134 D	20.0			
	550	KIEV	7	1241.7	1242.7	11.2	34.0			
	2800	OTTA	20	1303	1308	22	9.0	2.9		
	245	SGMR	6	1303.6	1305.2	13.4	6.1	1.2		
	9400	HUAN	20	1304.8	1307.5	4.8	9.8	4.2		
	8800	SGMR	22	1304.7	1307.8	15.8	6.4	3.8		
	8800	ATHN	3	1304.8	1309.2	9	16.9	5.1		
	4995	ATHN	20	1304.8	1308	11.4	14.0	8.4		
	4995	SGMR	20	1304.7	1308.1	14.2	21.6	10.8		
	2695	SGMR	20	1304.8	1308.2	13.9	9.0	4.5		
	1415	ATHN	1	1304.7	1308.2	9.7	9.7	2.9		
	1415	SGMR	46	1304.2	1308.2	8.8	9.9	2.0		
	1415	SGMR	46		1311.3		8.9			
	930	BORD	45	1304.	1307.2	12	27.0	12.0		
	808	ONDR	45	1304.5	1307	10.5	95.0			
	606	SGMR	4	1304.3	1307.2	14	63.3	19.0		
	550	KIEV	6	1304.5	U	20	95.0			
	536	ONDR	45	1304.5	1307	12	85.0			
	510	POTS	45	1304	1305	13 U	84.0	28.0		
	410	SGMR	6	1304.3	1305.9	11.9	192.3	76.9		
	260	ONDR	45	1304.5	1305	13	20.0			
	7000	SAOP	3	1305.8	1307.8	6.9	15.6	5.6		
	2700	PENN	20	1305.2	1307.7	25.2	9.7	2.9		
	2695	ATHN	20	1305.5	1308.3	10.9	4.6	2.8		
	29	UPIC	45	1305	1305.5	1.5				
	1470	BERL	46	1330 E	1355	60 D	175.0			
	2800	OTTA	21	1338	1407	80	9.0	4.0		
	9400	HUAN	21	1340.6	1400.6	66.1	25.2	10.2		
	2700	PENN	45	1344	1353.7	21.1	47.4	17.1		
	2695	SGMR	46	1345.7	1353.6	22	53.4	10.7		
	2695	SGMR	46		1355		45.0			
	1415	ATHN	22	1345	1355.1	24.1	136.7	82.0		
	1415	SGMR	46	1345.2	1353.7	24.3	54.9	40.9		
	1415	SGMR	46		1358		204.3			
	4995	ATHN	22	1346.5	1352.3	43.3	35.7	21.4		
	2695	ATHN	22	1346.4	1352.3	33.5	37.0	22.2		
	8800	SGMR	22	1347.4	1352.5	53.8	31.3	8.8		
	8800	ATHN	22	1347.8	1352.5	31.1	28.9	17.3		
	7000	SAOP	46	1347.9	1352.5	9.6	45.6	22.2		
	7000	SAOP		1347.9	1352.5	7.7	45.6	22.2		
	7000	SAOP		1355.1	1356.2	1.9	27.8	4.4		
	4995	SGMR	22	1347.3	1352.2	58.7	39.9	23.9		
	2800	OTTA	46	1347	1352.2	17.5	47.0	17.6		
	930	BORD	45	1347	1355.2	18	448.0	48.0		
	410	SGMR	6	1347.2	1353.9	38.8	233.0	93.0		
	260	ONDR	45	1347	1354	35	45.0			
	245	SGMR	6	1347.2	1351.7	42.2	66.7	20.0		
	237	TRST	42	1347.7	1351.9	10.3	230.0			
	113	POTS	45	1347.8	1353.4	10	50000.0	1000.0		
	29	UPIC	45	1347		21				
	15400	SGMR	22	1348.5	1352.8	57.3	26.6	15.9		
	10700	PENN	20	1348	1352.5	47.3	25.8	9.3		
	10500	BERN	20	1348.8	1352.9	30				
	536	ONDR	45	1348.5	1353.5	11.5	110.0			
	9400	HUAN	20	1349.1	1352.4	65.5	29.4	15.2		
	808	ONDR	45	1349	1355	11	340.0			
	510	POTS	41	1349	1354	13 U	140.0	20.0		
	550	KIEV	3	1350.5	1353.5	9	156.0			
	234	POTS	45	1351.8	1351.8	.1	100.0	15.0		
	7000	SAOP	29	1357.5						
	2700	PENN	29	1405.1	1405.1	45	7.0	3.5		
	2695	SGMR	29	1407.7	1407.7	34.1	7.2	2.9		
	1415	SGMR	29	1409.5	1409.5	33.2	4.5	1.8		
	237	TRST	42	1415	1417.6	6	70.0			
	2800	OTTA	260	1620	1710	50	-2.2	-1.1		
	2695	PENT	20	2140	2200	40	1.8	0.9		
7	260	ONDR	41	0723	1223	427	25.0			
	808	ONDR	5	1326	1326	.5	90.0			
	2800	OTTA	41	1446	1447.1	1.5	10.6			
	2800	OTTA	8	1446	1446		5.4			
	2800	OTTA	8	1447	1447.1	.5	10.6	5.3		
	2800	OTTA	22	1500	1530	95	1.6	0.8		
	930	BORD	45	1506	1506.3	1	12.0	1.0		

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NOV 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} MEAN	INT	REMARKS
8	260	ONDR	5	0945.5	0945.5	.5	20.0			
	200	GORK	6	1143.7	1144.2	1.3	140.0	20.0		
	100	GORK	6	1143.7	1144.2	.8	40.0	9.0		
	18	MCMA	6	1329	1331	2			2	
	930	BORD	5	1607	1607	1	8.0	2.0		
10	2800	OTTA	20	1435	1442	20	1.0	0.5		
	2800	OTTA	21	1535	1610	105	3.2	2.0		
	2700	PENN	1	1542.8	1543.9	1.6	5.1	1.7		
	1420	BOUL	8	1542.5	1543.5	5	2.0	1.0		
	4995	SGMR	1	1543.4	1543.6	1.1	3.6	1.4		
	2800	OTTA	1	1543	1544	2.5	4.8	1.6		
	2695	SGMR	1	1543.3	1543.8	3.3	3.9	1.6		
	1415	SGMR	2	1543.7	1544	2.3	2.2	.9		
	2700	PENN	29	1544.4	1544.4	57	1.7	0.9		
	2695	BOUL	8	1544.5	1545	2	6.0	2.0		
11	1420	ARCE	20	0905.4	0933.9	65				
	260	ONDR	5	0934.5	0934.5	.5	25.0			
	7000	SANP	1	1531.3	1532.6	2.4	4.6	2.3		
	18	MCMA	41	1606	1609	4			1	
	606	SGMR	4	1623.9	1624.1	1.9	18.2	5.4		
	410	SGMR	6	1623.8	1624.8	2.2	47.0	9.4		
	2800	OTTA	1	1624	1625	5	1.4	0.6		
	1415	SGMR	1	1624	1624.4	.9	2.9	.8		
	245	SGMR	49	1624	1624.6	5.3	282.2	56.4		
	2695	BOUL	3	1625	1626	2	3.0	1.0		
12	18	MCMA	6	1317	1319	3			1	
	18	MCMA	6	1328	1331	4			2	
	1420	BOUL	8	1734	1735.5	2.5	4.0	1.0		
13	930	BORD	48	1550	1550.9	2	27.0	1.0		
14	9400	TYKW	5	0217.3	0217.6	.7	20.0	7.0		
15	3750	TYKW	5	0558	0559	5	5.0	2.0		
	260	ONDR	41	0906	1015.5	320	25.0			
	18	MCMA	8	2126	2129	4			2	
16	200	HIRA	43	0240	0630	285 D	23.0	13.0		
	200	GORK	44	0600 E		83		5.0		
	100	GORK	44	0600 E		360 D		5.0		
	221	ABST	44	0700	0707	240	7.0			
	260	ONDR	41	0755	1148.5	369	25.0			
	245	SGMR	44	1140 E	1911.9	576 D	522.0			
	29	UPIC	45	1227.5	1230	3				
	18	MCMA	6	1612	1614	3			1	
	2695	PENT	1	2131.5	2133	4	1.4	0.7		
	201	VORO	44	2300	2300	240		11.0		
17	200	HIRA	44	0010 E	0550	495 D	45.0	28.0		
	100	HIRA	45	0319.5	0320	1.5	350.0	150.0		
	100	HIRA	45	0520	0520.2	1	870.0	250.0		
	200	GORK	44	0600 E		139		5.0		
	100	GORK	44	0600 E		360 D		5.0		
	221	ABST	44	0700	0910.5	240	12.0			
	260	ONDR	44	0800	1139	357	180.0			
	200	GORK	44	1003		117 D		5.0		
	245	SGMR	44	1141 F	1304.9	574 D	184.0			
	200	GORK	6	0710.9	0711.1	.4	80.0	40.0		
	650	GORK	1	0711	0711.2	.3	.6			
	113	POTS	45	0711	0711.2	.4	850.0	130.0		
	100	GORK	6	0711	0711.3U	.3	80.0			
	221	ABST	6	0812	0812.2	.8	35.0			
	207	IZMI	6	0813.5	0814.3	2.5	110.0	40.0		
	221	ABST		0910	0910.5	1.2	38.0	17.0		
	221	ABST	6	0950.2	0950.5	.5	38.0			
	237	TRST	45	1000.7	1000.7	.1	120.0	23.0		
	408	TRST	41	1138.6	1139.6	1.3	65.0			
	1470	BERL	1	1139	1139.5	1	5.0	1.5		
	950	GORK	3	1139.4	1139.7	.7	11.0	5.5		
	808	ONDR	45	1139	1139.5	1	70.0			
	650	GORK	3	1139.4	1139.6	.6	9.7	5.0		
	536	ONDR	45	1139	1139.5	1	35.0			
	510	POTS	45	1139.2	1139.2	1.3U	15.0	2.0		
	237	TRST	41	1139.1	1139.4	.8	560.0			
	234	POTS	45	1139.2	1139.4	.4	140.0	10.0		
	200	GORK	6	1139.3	1139.4	.8				
	200	GORK		1139.3	1139.6					
	113	POTS	45	1139.1	1139.6	.7	1000.0	25.0		
	100	GORK	6	1139.2	1139.7	1.2	800.0			
	29	UPIC	45	1139.5		2.5				
	1470	BERL	1	1215	1217.4	5	2.4	1.0		
	536	ONDR	45	1215.5	1217	4.5	45.0			
	510	POTS	45	1215.5	1215.8	4 U	15.0	4.0		
	408	TRST	45	1216	1217.2	3.5	28.0	8.0		
	234	POTS	45	1307	1307.1	.1	100.0	25.0		
	2800	OTTA	1	1533	1535.5	5	1.4	0.7		
	2800	OTTA	1	1727.2	1729	4.5	1.4	0.7		

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NOV 1974	FREQUENCY	STATION	TYPE	STARTING TIME UT	TIME OF MAXIMUM UT	DURATION MINUTES	FLUX DENSITY 10^{-22} Wm^{-2} Hz^{-1} PEAK	FLUX DENSITY MEAN	INT	REMARKS
	200	HIRA	44	2120 E	0355	615 D	45.0	28.0		
	201	VORO	44	2300	2317	240		44.0		
	9400	HUAN	20	2151.7	2205.0	24.4	12.6	6.3		
18	606	MANI	40	0354.8	0355.7	4.7	8.2	3.6		
	8800	MANI	1	0355.7	0356.6	1.1	9.3	1.9		
	4995	MANI	1	0355.5	0356.6	5.1	10.1	4.0		
	3750	TYKW	5	0356	0356.5	3	6.0	1.0		
	2695	MANI	1	0356.2	0356.5	1.3	2.6	.9		
	2000	TYKW	5	0356	0356.5	2	7.0	1.5		
	1415	MANI	1	0356	0356.8	1.5	2.4	.5		
	1000	TYKW	5	0356	0356.7	2	.9	0.2		
	100	HIRA	45	0522.5	0522.8	1	550.0	100.0		
	200	GORK	44	0606		264		5.0		
	100	GORK	44	0606		264 D		5.0		
	221	ABST	44	0700	0946.8	240	16.0			
	207	IZMI	43	0700		300	70.0			
	260	ONDR	44	0745	0946.5	369	125.0			
	221	ABST		0814	0816.5	2.5	41.0	13.0		
	221	ABST	6	0927.5	0927.8	.5	47.0			
	221	ABST		0945.8	0946.8	2	49.0	16.0		
	237	TRST	45	0946.8	0946.9	.3	2100.0	620.0		
	234	POTS	45	0946.1	0946.9	1	750.0	35.0		
	1420	ARCE	20	0951.8	1022.8	82				
	221	ABST		1011.2	1012	1.2	35.0	12.0		
	234	POTS	40	1347.7	1348.7	1.1	100.0	3.0		
	2700	PENN	45	1812.7	1813.2	4.2	39.4	3.3		
	2800	OTTA	25	2005	2115	70	2.2	1.1		
	2800	OTTA	20	2016	2024	16	1.2	0.6		
	2695	PENT	24P	2115		60 D	2.2			
	200	HIRA	44	2120 E	2200	600 D	45.0	18.0		
	201	VORO	44	2300	0120	240		21.0		
	2695	PENT	1	2228.2	2229	2	2.6	1.3		
19	1000	TYKW	45	0042	0049	20	4.0	1.5		
	1000	TYKW	5	0223	0226.4	10	3.0	1.0		
	100	GORK	44	0600 E		360 D		10.0		
	221	ABST	44	0700	0946.5	240	9.0			
	221	ABST		0700.8	0701	.5	47.0			
	207	IZMI	43	0700		300	160.0			
	260	ONDR	44	0750	0914	374	110.0			
	200	GORK	44	0839.8		87		10.0		
	221	ABST		0750.2	0750.8	1.5	43.0	18.0		
	3100	CRIM	1	0757	0759	10	4.0	1.0		
	221	ABST		0856.8	0858	2	44.0	26.0		
	221	ABST		0940.5	0946.5	9	44.0	22.0		
	536	ONDR	45	0941	1001.5	49	45.0			
	550	KIEV	24	0946		48	37.0			
	221	ABST		1004.2	1005	1.5	51.0	29.0		
	234	POTS	45	1018.3	1018.5	.3U	250.0	50.0		
	234	POTS	45	1144.3	1144.4	.2U	175.0	30.0		
	234	POTS	45	1204.2	1204.2	.6U	220.0	30.0		
	3000	BERL	22	1210	1240.8	110 D	11.0			
	1470	BERL	22	1220	1240.8	100 D	5.6			
	3100	CRIM	3	1223	1241	40 D	15.0			
	9500	BERL	20	1235	1245	45	5.0			
	234	POTS	45	1244	1244.3	.5U	175.0	18.0		
	2800	OTTA	20	1305	1350	195	5.6	2.8		
	234	POTS	45	1341.8	1342.7	2.4U	225.0	10.0		
	228	HARS	45	1342	1343	2.5	140.0	40.0		
	245	SGMR	44	1620 E	1723.9	233 D	88.2			
	2800	OTTA	27	1735		95	.8	0.7		
	2800	OTTA	24	1735	1740	5	.8	0.4		
	2800	OTTA	24P	1740		80	.8			
	2800	OTTA	26	1900	1910	10	- .8	-0.4		
	200	HIRA	44	2120 E	0625 U	600 D	35.0U	24.0		
	201	VORO	44	2300	0139	240		45.0		
20	1000	TYKW	45	0134	0152.1	40	6.0	2.0		
	200	GORK	44	0603 E		110		5.0		
	221	ABST	43	0700	0706.2	36	7.0			
	260	ONDR	44	0747	1003	376	105.0			
	221	ABST	43	1013.2	1031.2	47	8.0			
	245	SGMR	44	1145 F	1252.3	567 D	78.0			
	536	ONDR	45	0922	0930	34	40.0			
	234	POTS	45	0953.3	0953.4	1.3U	120.0	30.0		
	207	IZMI	41	0954	0959	81	300.0			
	237	TRST	42	1248.9	1250	2.7	240.0			
	234	POTS	40	1249.5	1256.2	6.8U	270.0	10.0		
	234	POTS	40	1327.2	1328.7	1.5U	175.0	4.0		
	18	MCMA	41	1339	1341	2				
	113	POTS	41	1422.2	1428.2	6.7	220.0	2.0	1	
	18	MCMA	6	2030	2033	5				
	200	HIRA	44	2120 E	2225	600 D	40.0	15.0	1	
	201	VORO	44	2300	0052	240		16.0		
21	200	GORK	41	0634.3	0634.8	2	90.0			
	200	GORK		0634.3	0635.6		100.0			
	221	ABST	44	0700	0735.2	120	14.0			
	234	POTS	45	0743.8	0753.9	.2U	350.0	70.0		

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	260	ONDR	44	0750	0829	360	55.0			
	245	SGMR	44	1146 E	1930	565 D	17.8			
	234	POTS	40	0806	0810.2	6 U	250.0	3.0		
	221	ARST		0815	0815.5	1	14.0			
	234	POTS	45	0833.7	0833.8	.2U	230.0	25.0		
	536	ONDR	45	0858	0915	21	40.0			
	550	KIEV	24	0917	0936	20.8	79.0			
	930	BORD	40	1541	1542.3	2	99.0	2.0		
	2695	PENT	20	2030	2035	30	2.0	1.0		
	2695	PENT	1	2040	2040.5	1	1.0	0.7		
	200	HIRA	44	2120 F	0405	600 D	25.0	14.0		
	201	VORO	44	2300	0136	240		24.0		
22	200	GORK	44	0603 E		117		5.0		
	221	ARST	44	0700	0707.5	240	6.0			
	113	POTS	41	0740.5	0740.5	3.5	300.0	2.0		
	260	ONDR	44	0743	1011	382	55.0			
	245	SGMR	44	1148 E	1739.8	563 D	37.2			
	2800	OTTA	20	1345		15 D	1.0			
	2800	OTTA	20	1414	1425	19	2.2	1.4		
	2800	OTTA	27	1442		52	1.2	1.0		
	2800	OTTA	24	1442	1445	3	1.2	0.6		
	2800	OTTA	24P	1445		35	1.2			
	2800	OTTA	26	1520	1534	14	-1.2	-0.6		
	2800	OTTA	240	1540	1657	77	4.4	2.2		
	2800	OTTA	24P	1657		300 D	4.4			
	200	HIRA	44	2120 E	2303	150 D	100.0	28.0		
	201	VORO	44	2300	2308	240		23.0		
23	1000	TYKW	45	0340	0436.7	120	13.0	4.0		
	100	HIRA	43	0414	0522.8	186 D	500.0	20.0		
	100	HIRA	45	0415.5	0416.5	2.5	270.0	65.0		
	200	GORK	44	0600 E		240 D		8.0		
	100	GORK	44	0600 E		240 D		30.0		
	221	ARST	44	0700	0736.8	240	13.0			
	260	ONDR	44	0740	0949	395	60.0			
	221	ARST		0840.5	0845.8	10	26.0	9.0		
	245	SGMR	44	1149 E	1323.3	561 D	9.5			
	18	MCMA	41	1840	1843	8			1	
	18	MCMA	6	1906	1909	4			2	
	18	MCMA	41	1915	1920	5			2	
	18	MCMA	6	1953	1954	2			2	
	18	MCMA	42	2030	2033	14			2	
	201	VORO	44	2300	2316	240		16.0		
24	221	ARST	43	0700	0706.5	33	27.0			
	221	ARST		0705.5	0706.5	1	31.0			
	100	GORK	44	0715		300		5.0		
	260	ONDR	44	0720	1203.5	403	165.0			
	100	GORK	41	1049.9	1050	2.5	50.0			
	100	GORK		1049.9	1051.8		40.0			
	100	GORK	6	1116.7	1117	1	80.0D			
	410	SGMR	44	1150 E	1409.8	560 D	32.8			
	245	SGMR	44	1150 E	1344.8	560 D	180.9			
	234	POTS	41	1202	1220	20 U	900.0	15.0		
	228	HARS	45	1218	1219.5	4	200.0	60.0		
	234	POTS	45	1330.7	1330.7	.3	500.0	80.0		
	234	POTS	41	1343.9	1345	7	700.0	5.0		
	18	MCMA	6	1611	1613	2			1	
	18	MCMA	6	2031	2032	2			1	
	201	VORO	44	2300	2331	240		17.0		
25	100	HIRA	45	0126.4	0126.7U	1	1000.0D	400.0D		
	260	ONDR	44	0753	1202	377	55.0			
	221	ARST		0906.8	0907	.5	31.0			
	237	TRST	42	0935.2	0938	7.5	54.0			
	221	ARST		0937.8	0938	.5	18.0			
26	100	GORK	41	0719.7	0720.1	3.4	10.0			
	100	GORK		0719.7	0722 U		70.0D			
	221	ABST		0720.8	0721.5	1	38.0			
	200	GORK	6	0721.3	0721.8	1	170.0D			
	113	POTS	45	0721.6	0721.8	.6	600.0	100.0		
	260	ONDR	41	0750	0939.5	380	45.0			
	283	DWIN	44	1000 E	1318	310	175.0	7.0		
	410	SGMR	44	1152 F	1240.8	133 D	11.2			
	245	SGMR	44	1152 E	1327.8	133 D	9.4			
	2700	PENN	45	1807.8.	1809.2	2	132.0D			
	1420	BOUL	8	2117.5	2118.5	1.5	18.0	6.0		
	2695	PENT	8	2118.2	2118.7	.8	5.0	2.0		
	2695	BOUL	8	2118.5	2119.5	1	4.0	1.0		
	2695	PENT	8	2144.5	2144.5		1.2			
	1420	BOUL	8	2204.5	2205	1.5	42.0	15.0		
	2695	PENT	2	2205	2205.2	1	3.4	1.7		
	2695	BOUL	8	2205	2206	1.5	8.0	3.0		
27	221	ARST		0808	0809.5	1.5	30.0	14.0		
	283	DWIN	44	0810 E		410	125.0	3.0		
	234	POTS	41	0811.8	0815.8	4.2	250.0	2.0		
	113	POTS	41	0811.8	0815.8	4.3	2100.0	40.0		

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	237	TRST	42	0812.7	0813.8	1.7	630.0			
	221	ABST		0812.8	0813.5	1.5	47.0			
	260	ONDR	41	0813	0814.5	337	75.0			
	245	SGMR	44	1154 E	1424.2	244.5D	12.0			
	29	UPIC	45	0814	0814.5	1.5				
	29	UPIC	45	0922	0922	2.5				
	536	ONDR	45	0923	0923.5	1.5	35.0			
	237	TRST	45	1020	1020.2	.6	220.0	43.0		
	930	BORD	5	1405	1405.7	1	21.0	1.0		
	930	BORD	40	1412	1423.8	13	69.0	2.0		
	2700	PENN	8	1455.9	1456	.3	20.2			
28	283	DWIN	44	0750 E		450	50.0	5.0		
	260	ONDR	41	0800	1057	365	20.0			
29	2000	TYKW	5	0156	0159.6	8	4.0	1.0		
	3750	TYKW	5	0157	0200	7	1.0	0.5U		
	283	DWIN	44	0745 E		455	100.0	5.0		
	260	ONDR	41	0800	1203.5	360	20.0			
	3100	CRIM	1	0923	0924	3	2.0	1.0		
	3100	CRIM	45	0936	0939	12	2.5	1.0		
	3100	CRIM		0936	0946		2.0			
	3100	CRIM		1009	1011	4	2.5	1.0		
	283	DWIN	45	1357	1359	2	30.0	5.0		
	18	MCMA	6	1549	1552	3			2	
30	237	TRST	42	1331.4	1332.3	1.5	67.0	27.0		
	29	UPIC	45	1346	1346.5	1				

Observatories:

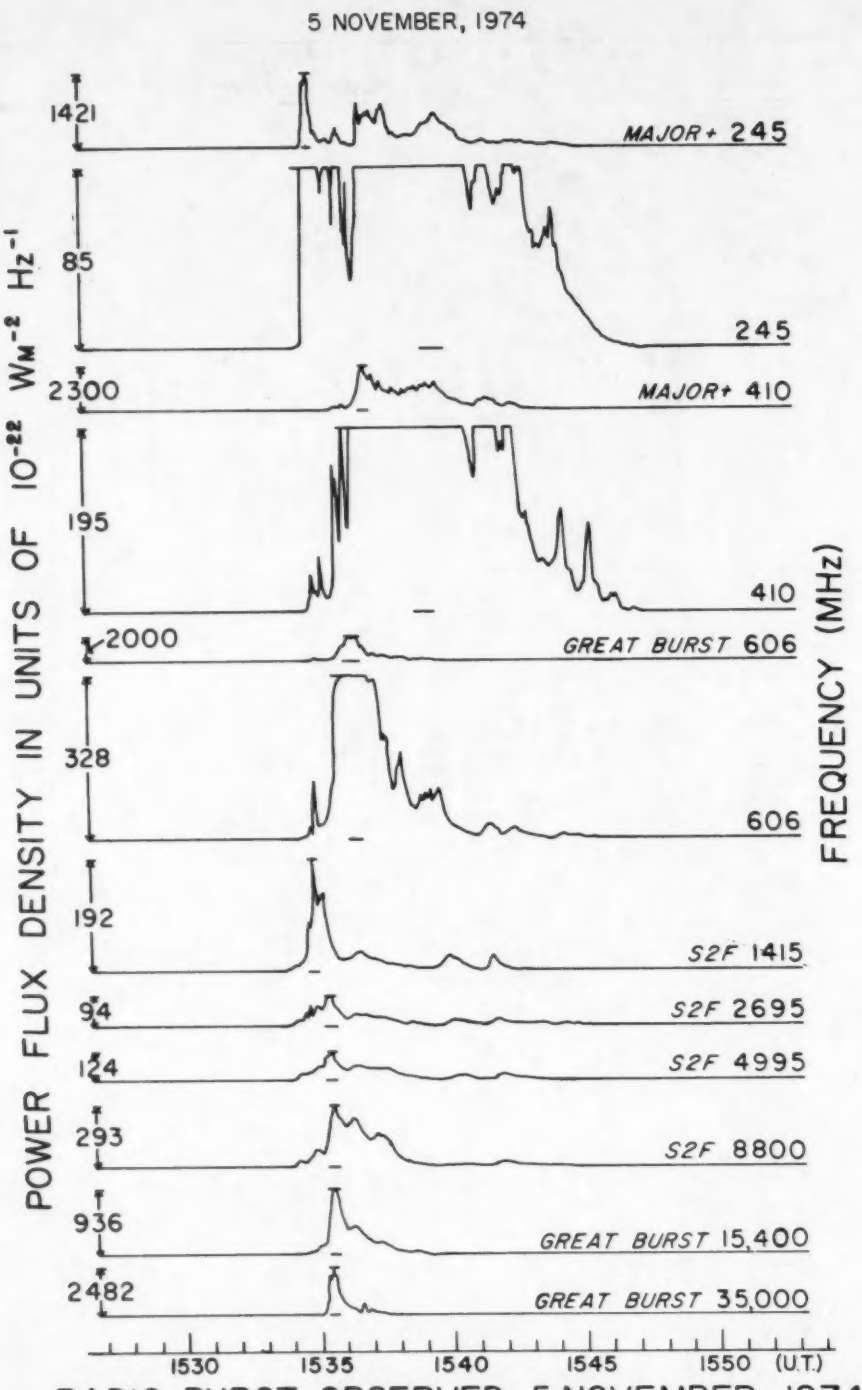
ABST = Abastumani
ARCE = Arcetri
BERL = Berlin-Adlershof
BERN = Berne
BORD = Bordeaux
BOUL = Boulder
CANR = Canary Islands
CRIM = Simferopol
CRON = Carnarvon
DWIN = Dwingeloo
GORK = Gorky
HIRA = Hiraiso
HUAN = Huancayo
IRKU = Irkutsk
IZMI = Moscow IZMIRAN
KIEV = Kiev
KISV = Kislovodsk
MANI = Manila
MCMA = McMath-Hulbert
ONDR = Ondrejov
OTTA = Ottawa ARO
PENN = Penn. State Univ.
PENT = Penticton
POTS = Potsdam
SAOP = Sao Paulo
SGMR = Sagamore Hill
SLOU = Slough
TRST = Trieste
TYKW = Toyokawa
UPIC = Upice
VORO = Voroshilov

Explanation of Type Code:

1 Simple 1
2 Simple 1F
3 Simple 2
4 Simple 2F
5 Simple
6 Minor
7 Minor +
8 Spike
20 Simple 3
21 Simple 3A
22 Simple 3F
23 Simple 3AF
24 Rise
25 Rise A
26 Fall
27 Rise and Fall
28 Precursor
29 Post Burst Increase
30 Post Burst Increase A
31 Post Burst Decrease
32 Absorption
40 Fluctuation
41 Group of Bursts
42 Series of Bursts
43 Onset of Noise Storm
44 Noise storm in Progress
45 Complex
46 Complex F
47 Great Burst
48 Major
49 Major +

22
Nov 74

SELECTED SOLAR NOISE BURST



RADIO BURST OBSERVED 5 NOVEMBER, 1974
SAGAMORE HILL RADIO OBSERVATORY, HAMILTON, MASS.

OCTOBER 1974 DATA

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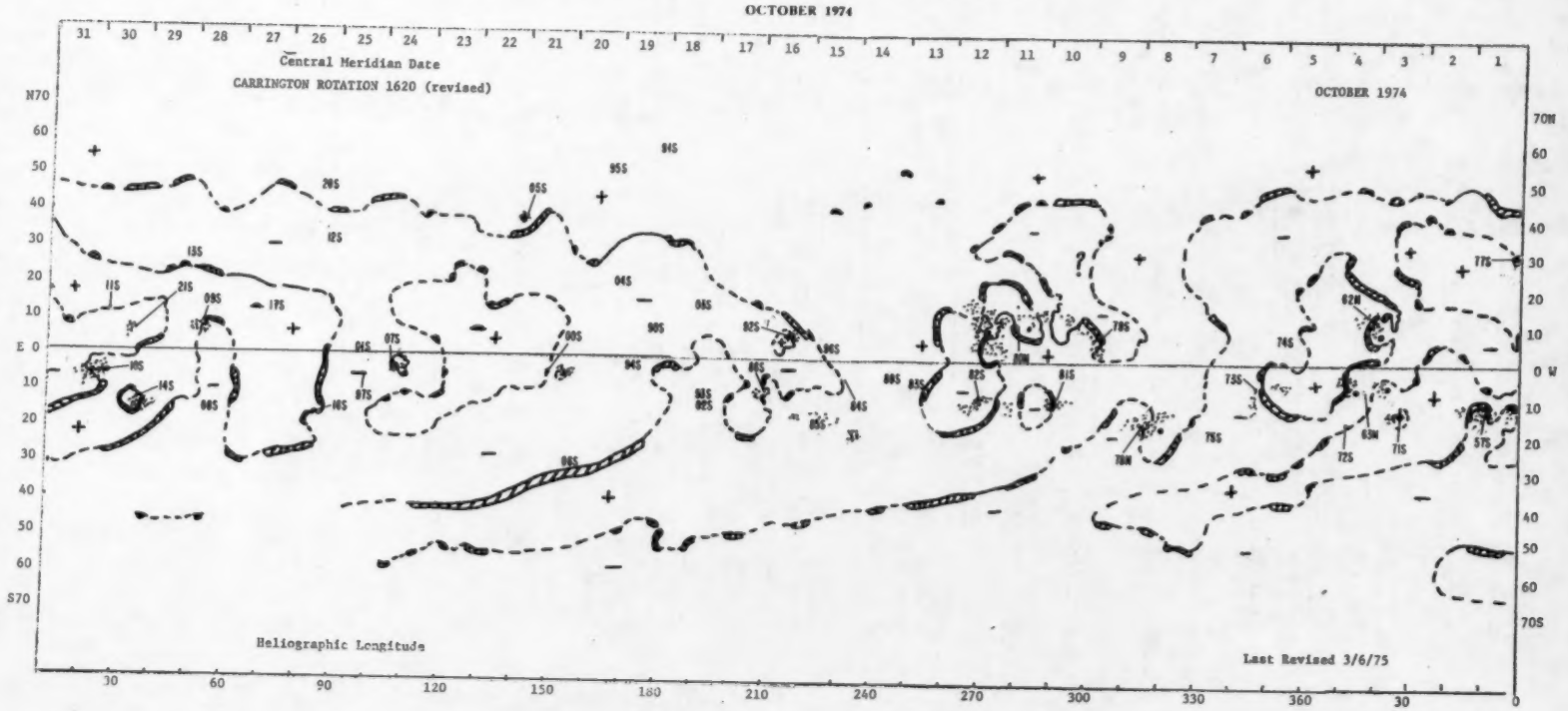
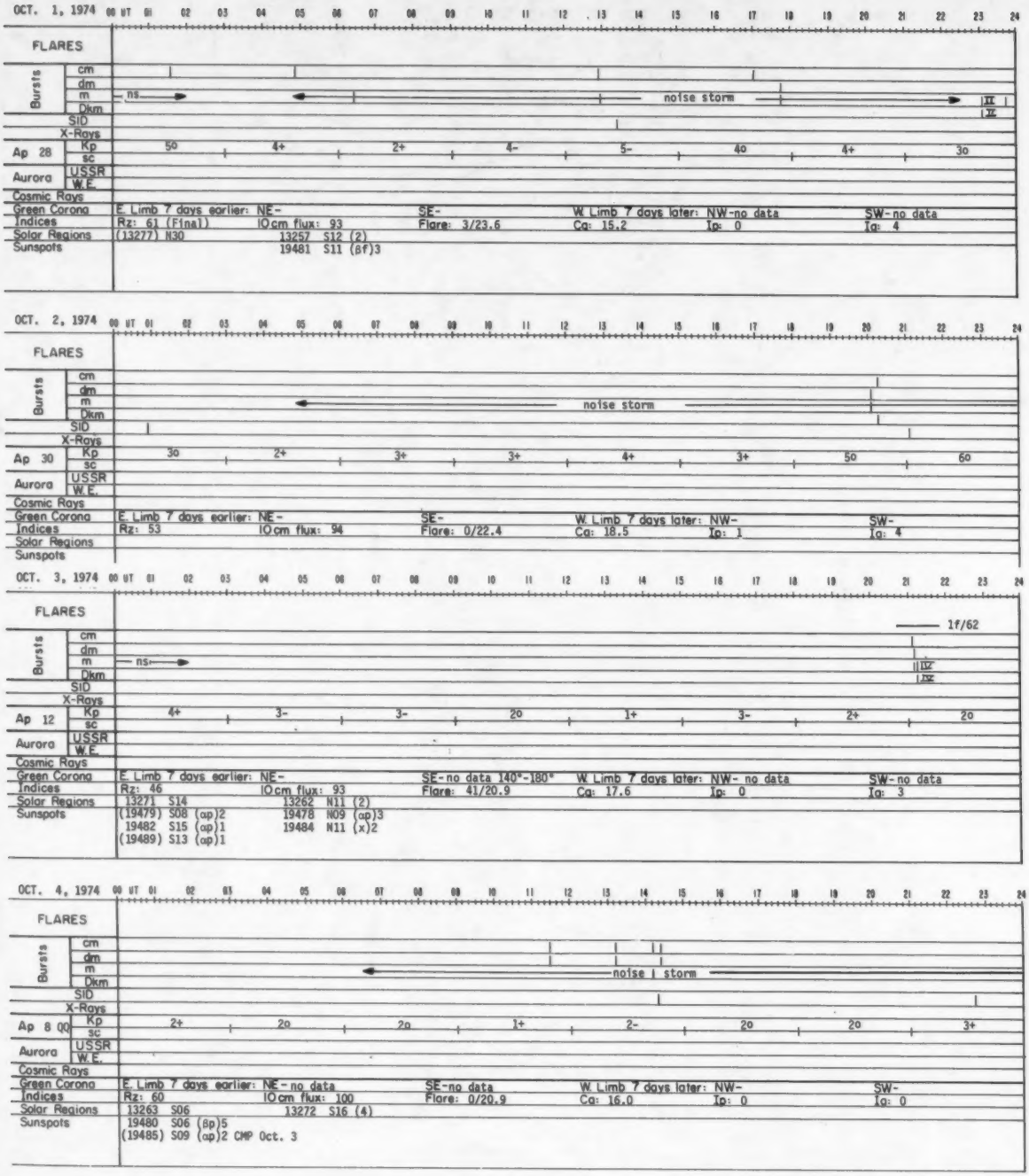
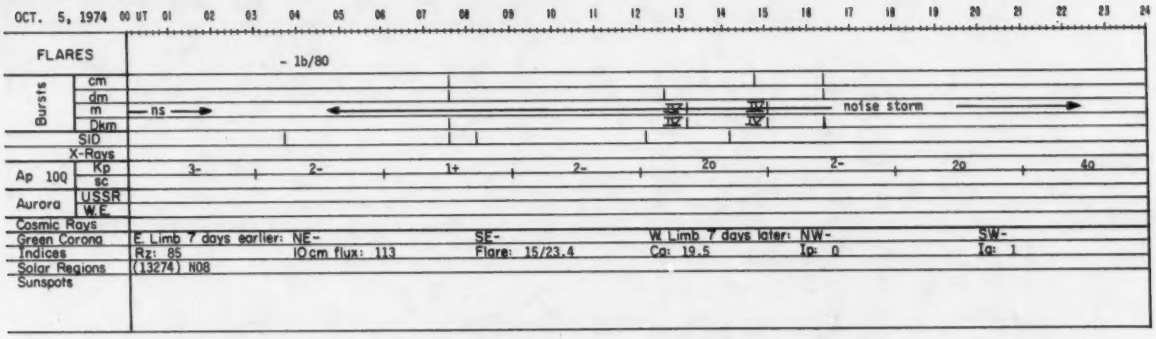
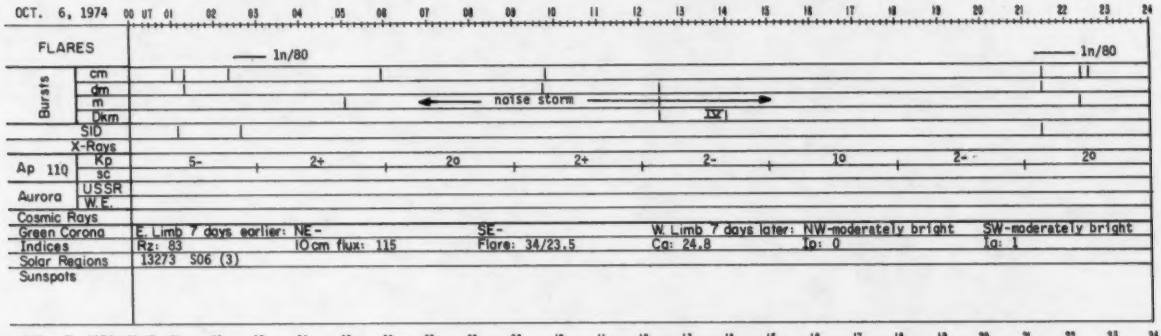
ABBREVIATED CALENDAR RECORD




OCT. 1, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 28
Kp
sc
50 4+ 2+ 4- 5- 4o 4+ 3o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE-
Rz: 61 (Final)
10cm flux: 93
(13277) N30
13257 S12 (2)
19481 S11 (βf)3
SE-
Flare: 3/23.6
W. Limb 7 days later: NW-no data
Ca: 15.2
Ip: 0
SW-no data
Ig: 4
OCT. 2, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 30
Kp
sc
30 2+ 3+ 3+ 4+ 3+ 5o 6o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE-
Rz: 53
10cm flux: 94
SE-
Flare: 0/22.4
W. Limb 7 days later: NW-
Ca: 18.5
Ip: 1
SW-
Ig: 4
OCT. 3, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1f/62
Bursts
cm
dm
m
Dkm
ns
SID
X-Rays
Ap 12
Kp
sc
4+ 3- 3- 2o 1+ 3- 2+ 2o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE-
Rz: 46
10cm flux: 93
13271 S14
(19479) S08 (αp)2
19482 S15 (αp)1
(19489) S13 (αp)1
13262 N11 (2)
19478 N09 (αp)3
19484 N11 (x)2
SE-no data 140°-180°
Flare: 41/20.9
W. Limb 7 days later: NW- no data
Ca: 17.6
Ip: 0
SW-no data
Ig: 3
OCT. 4, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 8 00
Kp
sc
2+ 2o 2o 1+ 2- 2o 2o 3+
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E. Limb 7 days earlier: NE- no data
Rz: 60
10cm flux: 100
13263 S06
19480 S06 (βp)5
(19485) S09 (αp)2 CMP Oct. 3
13272 S16 (4)
SE-no data
Flare: 0/20.9
W. Limb 7 days later: NW-
Ca: 16.0
Ip: 0
SW-
Ig: 0


OCT. 5, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
- 1b/80
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 10Q
Kp
sc
3- 2- 1+ 2- 2o 2- 2o 4o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices
Rz: 85 10cm flux: 113 Flare: 15/23.4 Ca: 19.5 Ip: 0 Ia: 1
Solar Regions
(13274) N08
Sunspots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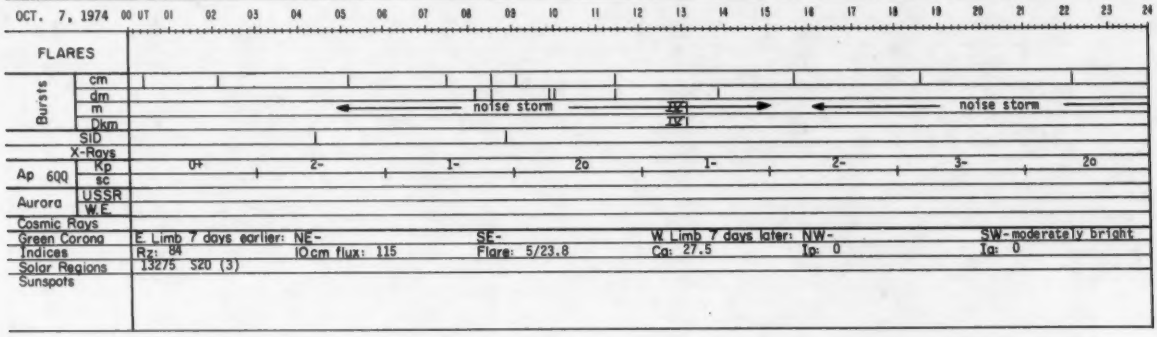
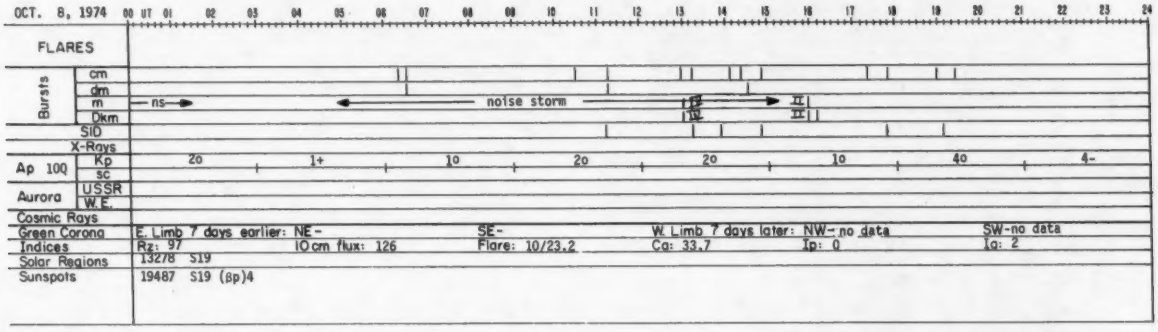
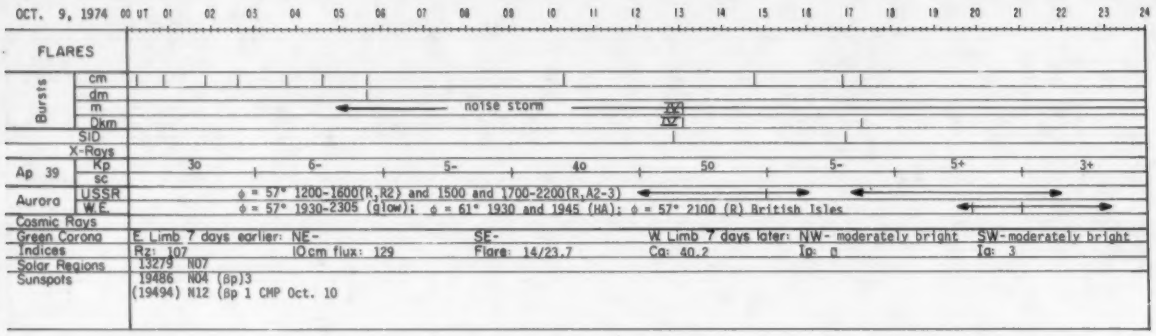
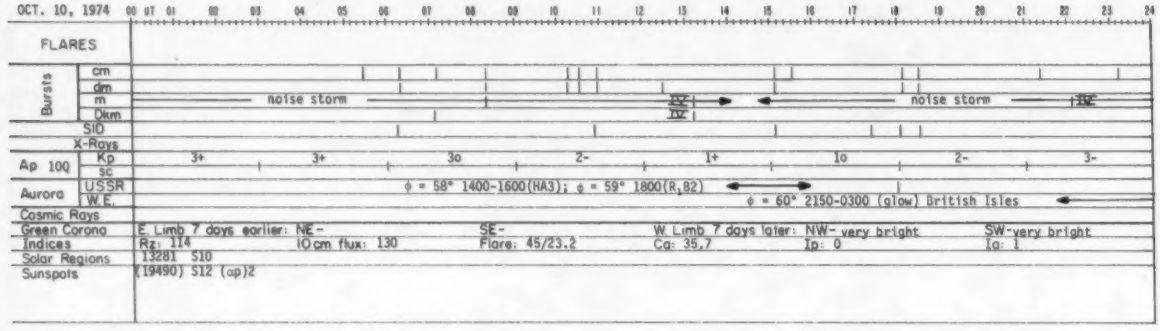
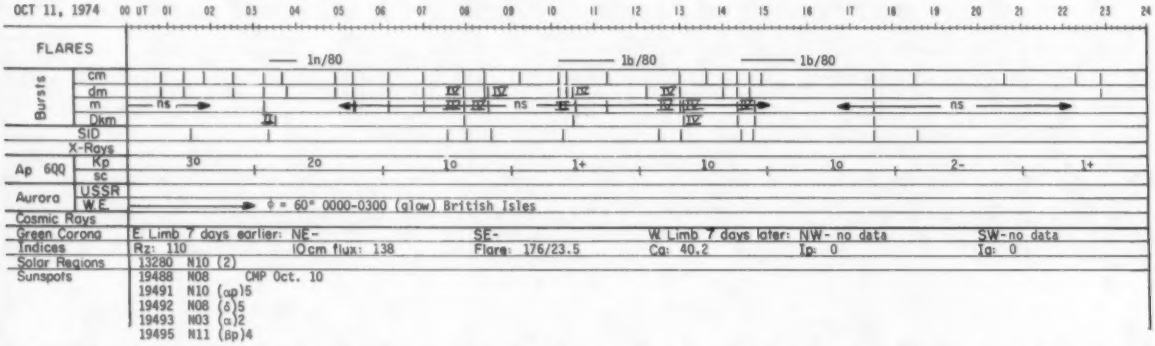
FLARES
1n/80
1n/80
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 11Q
Kp
sc
5- 2+ 2o 2+ 2- 1o 2- 2o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW-moderately bright SW-moderately bright
Indices
Rz: 83 10cm flux: 115 Flare: 34/23.5 Ca: 24.8 Ip: 0 Ia: 1
Solar Regions
13273 S06 (3)
Sunspots

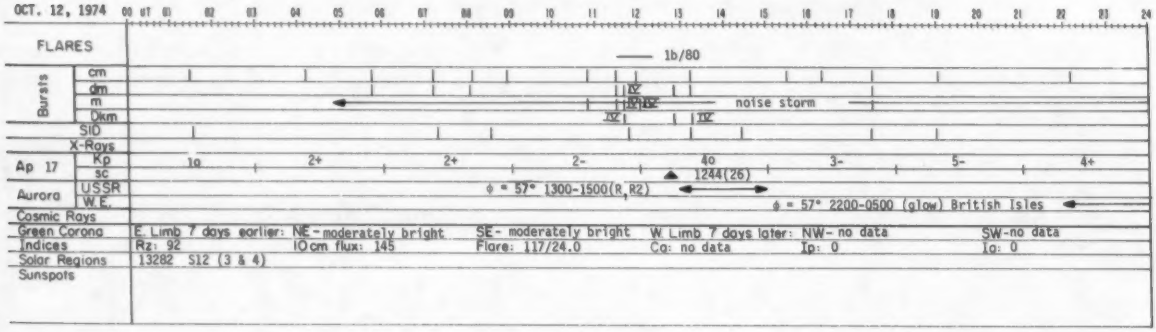

OCT. 7, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
noise storm
SID
X-Rays
Ap 6QQ
Kp
sc
0+ 2- 1- 2o 1- 2- 3- 2o
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-moderately bright
Indices
Rz: 84 10cm flux: 115 Flare: 5/23.8 Ca: 27.5 Ip: 0 Ia: 0
Solar Regions
13275 S20 (3)
Sunspots

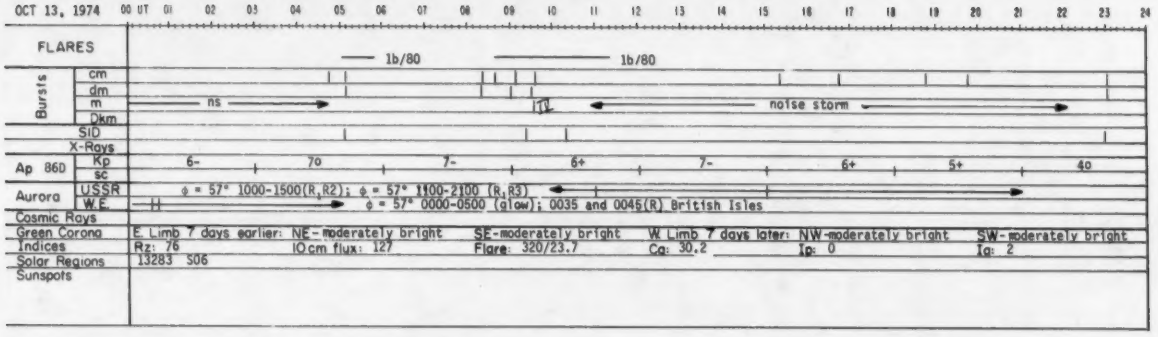

OCT. 8, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 10Q
Kp
sc
2o 1+ 1o 2o 2o 1o 4o 4-
Aurora
USSR
W.E.
Cosmic Rays
Green Corona
E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW-no data
Indices
Rz: 97 10cm flux: 126 Flare: 10/23.2 Ca: 33.7 Ip: 0 Ia: 2
Solar Regions
13278 S19
Sunspots
19487 S19 (βp)4

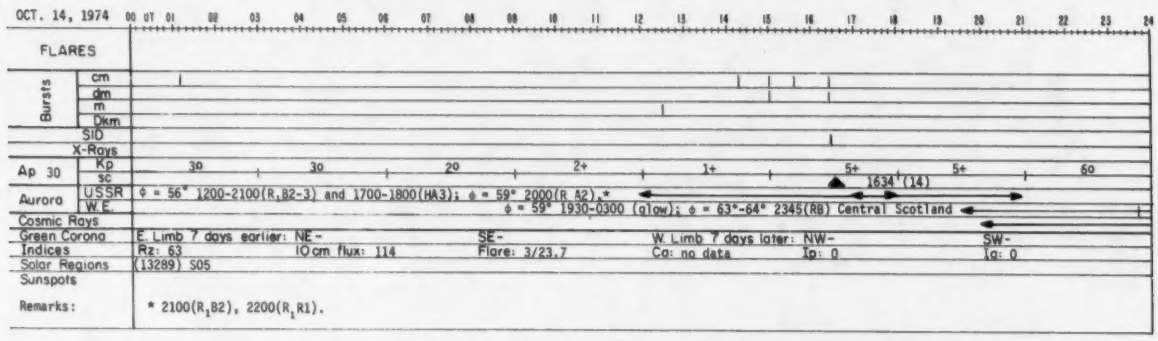

OCT. 9, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 39
Kp
sc
3o 6- 5- 4o 5o 5- 5+ 3+
Aurora
USSR
W.E.
φ = 57° 1200-1600(R,R2) and 1500 and 1700-2200(R,A2-3)
φ = 57° 1930-2305 (glow); φ = 61° 1930 and 1945 (HA); φ = 57° 2100 (R) British Isles
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE- SE- W Limb 7 days later: NW- moderately bright SW-moderately bright
Rz: 107 10cm flux: 129 Flare: 14/23.7 Ca: 40.2 Ip: 0 Ia: 3
13279 N07
19486 N04 (βp)3
(19494) N12 (βp 1 CMP Oct. 10


OCT. 10, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts
cm
dm
m
Dkm
noise storm
noise storm
SID
X-Rays
Ap 10Q
Kp
sc
3+ 3+ 3o 2- 1+ 1o 2- 3-
Aurora
USSR
W.E.
φ = 58° 1400-1600(HA3); φ = 59° 1800(R1,R2)
φ = 60° 2150-0300 (glow) British Isles
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE- SE- W Limb 7 days later: NW- very bright SW-very bright
Rz: 114 10cm flux: 130 Flare: 45/23.2 Ca: 35.7 Ip: 0 Ia: 1
13281 S10
(19490) S12 (αp)2


OCT 11, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1n/80
1b/80
1b/80
Bursts
cm
dm
m
Dkm
ns
ns
ns
SID
X-Rays
Ap 6QQ
Kp
sc
3o 2o 1o 1+ 1o 1o 2- 1+
Aurora
USSR
W.E.
φ = 60° 0000-0300 (glow) British Isles
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE- SE- W Limb 7 days later: NW- no data SW-no data
Rz: 110 10cm flux: 138 Flare: 176/23.5 Ca: 40.2 Ip: 0 Ia: 0
13280 N10 (2)
19488 N08 CMP Oct. 10
19491 N10 (αp)5
19492 N08 (β)5
19493 N03 (α)2
19495 N11 (βp)4


OCT. 12, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1b/80
Bursts
cm
dm
m
Dkm
noise storm
SID
X-Rays
Ap 17
Kp
sc
1o 2+ 2+ 2- 4o 3- 5- 4+
1244(26)
Aurora
USSR
W.E.
φ = 57° 1300-1500(R1,R2)
φ = 57° 2200-0500 (glow) British Isles
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
E Limb 7 days earlier: NE-moderately bright SE- moderately bright W Limb 7 days later: NW- no data SW-no data
Rz: 92 10cm flux: 145 Flare: 117/24.0 Ca: no data Ip: 0 Ia: 0
13282 S12 (3 & 4)


OCT 13, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1b/80
1b/80
Bursts
cm
dm
m
Dkm
ns
noise storm
SID
X-Rays
Ap 86D
Kp
6- 7o 7- 6+ 7- 6+ 5+ 4o
sc
Aurora
USSR
φ = 57° 1000-1500(R1R2); φ = 57° 1100-2100 (R1R3)
W.E.
φ = 57° 0000-0500 (glow); 0035 and 0045(R) British Isles
Cosmic Rays
Green Corona
E Limb 7 days earlier: NE- moderately bright
SE-moderately bright
W Limb 7 days later: NW-moderately bright
SW-moderately bright
Indices
Rz: 76
10cm flux: 127
Flare: 320/23.7
Ca: 30.2
Ip: 0
Ig: 2
Solar Regions
13283 S06
Sunspots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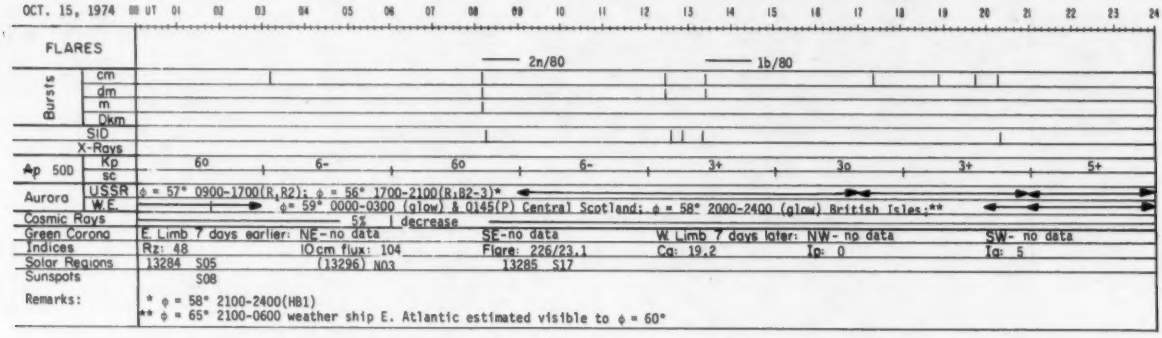
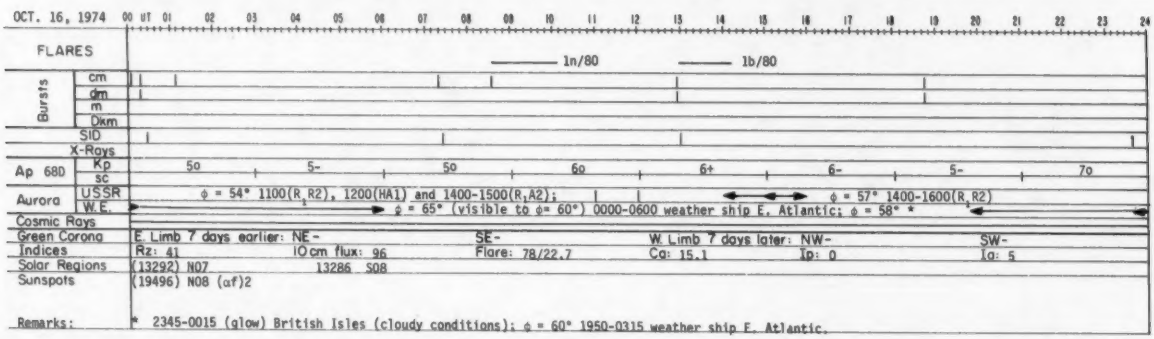
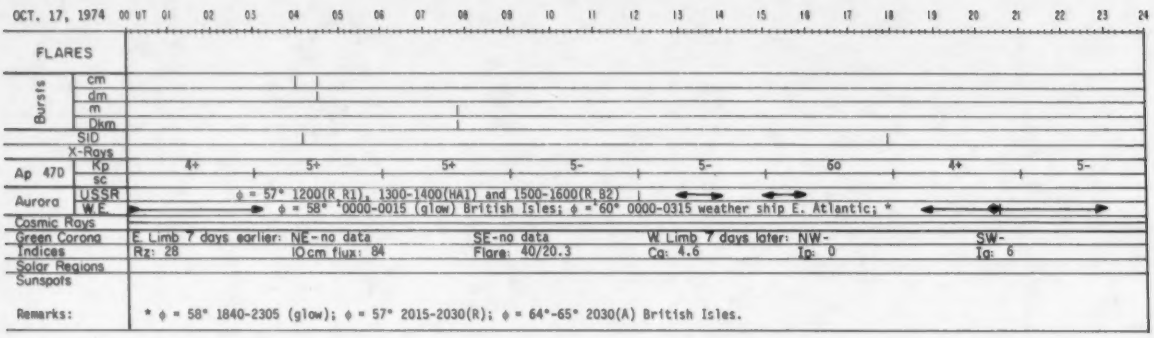
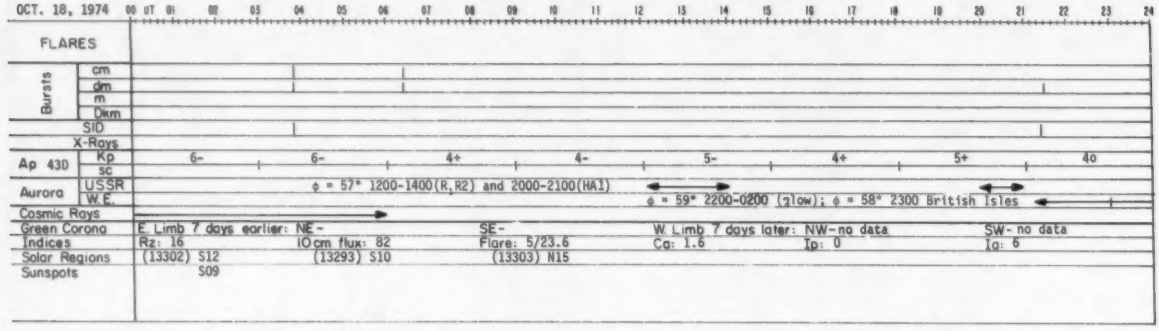
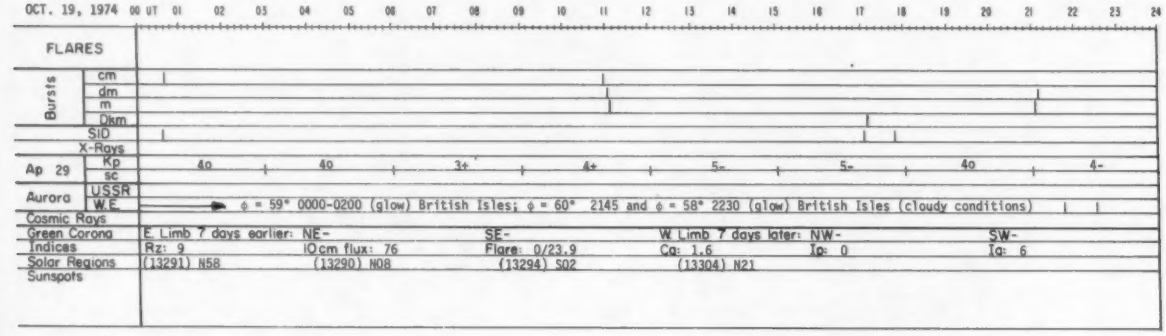
FLARES
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 30
Kp
3o 3o 2o 2+ 1+ 5+ 5+ 6o
1634 (14)
sc
Aurora
USSR
φ = 56° 1200-2100(R1B2-3) and 1700-1800(HA3); φ = 59° 2000(R A2),*
W.E.
φ = 59° 1930-0300 (glow); φ = 63°-64° 2345(RB) Central Scotland
Cosmic Rays
Green Corona
E Limb 7 days earlier: NE-
SE-
W Limb 7 days later: NW-
SW-
Indices
Rz: 63
10cm flux: 114
Flare: 3/23.7
Ca: no data
Ip: 0
Ig: 0
Solar Regions
(13289) S05
Sunspots
Remarks:
* 2100(R1B2), 2200(R1R1).

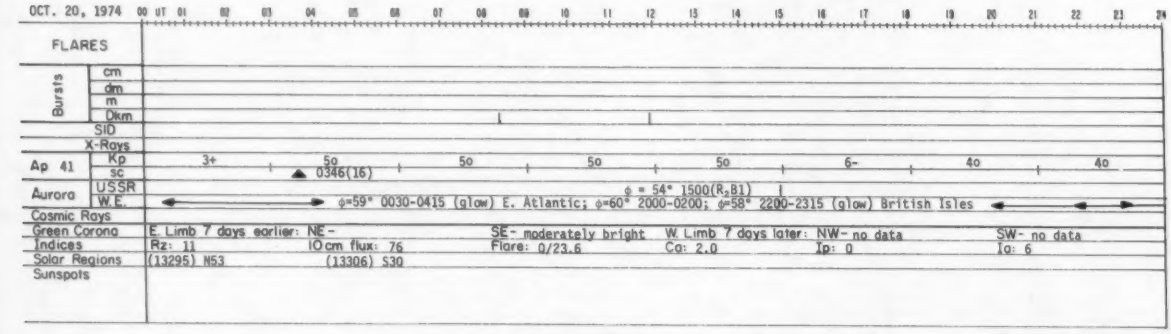

OCT. 15, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
2n/80
1b/80
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 50D
Kp
6o 6- 6o 6- 3+ 3o 3+ 5+
sc
Aurora
USSR
φ = 57° 0900-1700(R1R2); φ = 56° 1700-2100(R1B2-3)*
W.E.
φ= 59° 0000-0300 (glow) & 0145(P) Central Scotland; φ = 58° 2000-2400 (glow) British Isles;**
Cosmic Rays
5% decrease
Green Corona
E Limb 7 days earlier: NE-no data
SE-no data
W Limb 7 days later: NW- no data
SW- no data
Indices
Rz: 48
10cm flux: 104
Flare: 226/23.1
Ca: 19.2
Ip: 0
Ig: 5
Solar Regions
13284 S05
(13296) N03
13285 S17
Sunspots
S08
Remarks:
* φ = 58° 2100-2400(HB1)
** φ = 65° 2100-0600 weather ship E. Atlantic estimated visible to φ = 60°

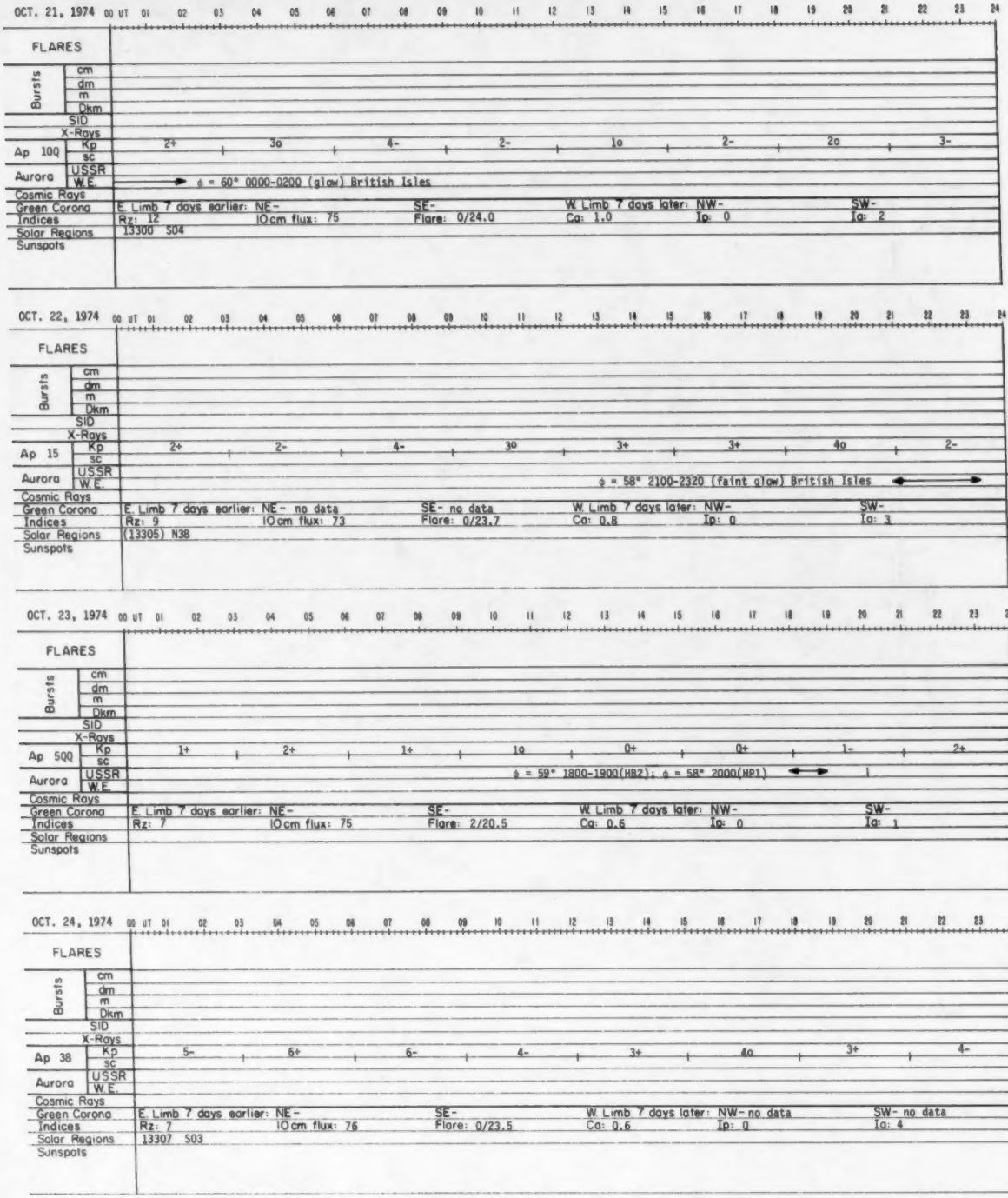

OCT. 16, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
1n/80
1b/80
Bursts
cm
dm
m
Dkm
SID
X-Rays
Ap 68D
Kp
5o 5- 5o 6o 6+ 6- 5- 7o
sc
Aurora
USSR
φ = 54° 1100(R1R2), 1200(HA1) and 1400-1500(R1A2);
φ = 57° 1400-1600(R1R2)
W.E.
φ = 65° (visible to φ= 60°) 0000-0600 weather ship E. Atlantic; φ = 58° *
Cosmic Rays
Green Corona
E Limb 7 days earlier: NE-
SE-
W Limb 7 days later: NW-
SW-
Indices
Rz: 41
10cm flux: 96
Flare: 78/22.7
Ca: 15.1
Ip: 0
Ig: 5
Solar Regions
(13292) N07
13286 S08
Sunspots
(19496) N08 (αf)2
Remarks:
* 2345-0015 (glow) British Isles (cloudy conditions); φ = 60° 1950-0315 weather ship E. Atlantic.

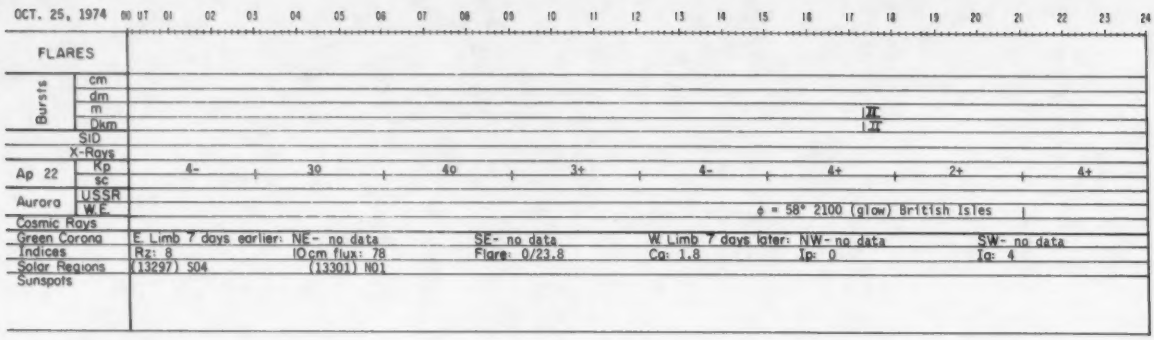

OCT. 17, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 47D Kp 4+ 5+ 5+ 5- 5- 6o 4+ 5-
sc
Aurora USSR φ = 57° 1200(R,R1), 1300-1400(HA1) and 1500-1600(R,B2)
W.E. φ = 58° 0000-0015 (glow) British Isles; φ = 60° 0000-0315 weather ship E. Atlantic; *
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-
Indices Rz: 28 10cm flux: 84 Flare: 40/20.3 Ca: 4.6 Ip: 0 Ig: 6
Solar Regions
Sunspots
Remarks: * φ = 58° 1840-2305 (glow); φ = 57° 2015-2030(R); φ = 64°-65° 2030(A) British Isles.

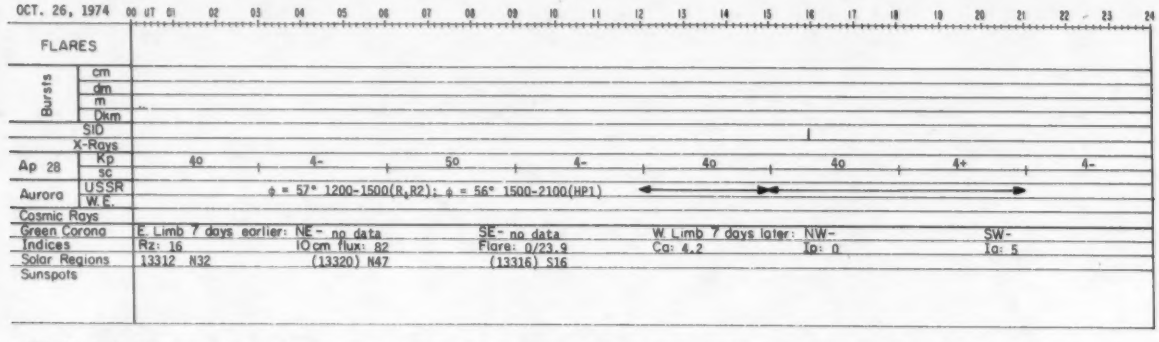

OCT. 18, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 43D Kp 6- 6- 4+ 4- 5- 4+ 5+ 4o
sc
Aurora USSR φ = 57° 1200-1400(R,R2) and 2000-2100(HA1)
W.E. φ = 59° 2200-0200 (glow); φ = 58° 2300 British Isles
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices Rz: 16 10cm flux: 82 Flare: 5/23.6 Ca: 1.6 Ip: 0 Ig: 6
Solar Regions (13302) S12 (13293) S10 (13303) N15
Sunspots S09


OCT. 19, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 29 Kp 4o 4o 3+ 4+ 5- 5- 4o 4-
sc
Aurora USSR
W.E. φ = 59° 0000-0200 (glow) British Isles; φ = 60° 2145 and φ = 58° 2230 (glow) British Isles (cloudy conditions)
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices Rz: 9 10cm flux: 76 Flare: 0/23.9 Ca: 1.6 Ip: 0 Ig: 6
Solar Regions (13291) N58 (13290) N08 (13294) S02 (13304) N21
Sunspots


OCT. 20, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 41 Kp 3+ 5o 5o 5o 5o 6- 4o 4o
sc ▲ 0346(16)
Aurora USSR φ = 54° 1500(R,B1)
W.E. φ=59° 0030-0415 (glow) E. Atlantic; φ=60° 2000-0200; φ=58° 2200-2315 (glow) British Isles
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- moderately bright W. Limb 7 days later: NW- no data SW- no data
Indices Rz: 11 10cm flux: 76 Flare: 0/23.6 Ca: 2.0 Ip: 0 Ig: 6
Solar Regions (13295) N53 (13306) S30
Sunspots


OCT. 21, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 10Q Kp 2+ 3o 4- 2- 1o 2- 2o 3-
sc
Aurora USSR W.E. ϕ = 60° 0000-0200 (glow) British Isles
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices Rz: 12 10cm flux: 75 Flare: 0/24.0 Ca: 1.0 Ip: 0 Ig: 2
Solar Regions 13300 S04
Sunspots
OCT. 22, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 15 Kp 2+ 2- 4- 3o 3+ 3+ 4o 2-
sc
Aurora USSR W.E. ϕ = 58° 2100-2320 (faint glow) British Isles
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- no data SE- no data W. Limb 7 days later: NW- SW-
Indices Rz: 9 10cm flux: 73 Flare: 0/23.7 Ca: 0.8 Ip: 0 Ig: 3
Solar Regions (13305) N38
Sunspots
OCT. 23, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 5QQ Kp 1+ 2+ 1+ 1o 0+ 0+ 1- 2+
sc
Aurora USSR W.E. ϕ = 59° 1800-1900(HB2); ϕ = 58° 2000(HP1)
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- SW-
Indices Rz: 7 10cm flux: 75 Flare: 2/20.5 Ca: 0.6 Ip: 0 Ig: 1
Solar Regions
Sunspots
OCT. 24, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 38 Kp 5- 6+ 6- 4- 3+ 4o 3+ 4-
sc
Aurora USSR W.E.
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- W. Limb 7 days later: NW- no data SW- no data
Indices Rz: 7 10cm flux: 76 Flare: 0/23.5 Ca: 0.6 Ip: 0 Ig: 4
Solar Regions 13307 S03
Sunspots


OCT. 25, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 22 Kp 4- 3o 4o 3+ 4- 4+ 2+ 4+
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
φ = 58° 2100 (glow) British Isles
E Limb 7 days earlier: NE- no data SE- no data W Limb 7 days later: NW- no data SW- no data
Rz: 8 10cm flux: 78 Flare: 0/23.8 Cg: 1.8 Ip: 0 Ig: 4
(13297) S04 (13301) N01


OCT. 26, 1974
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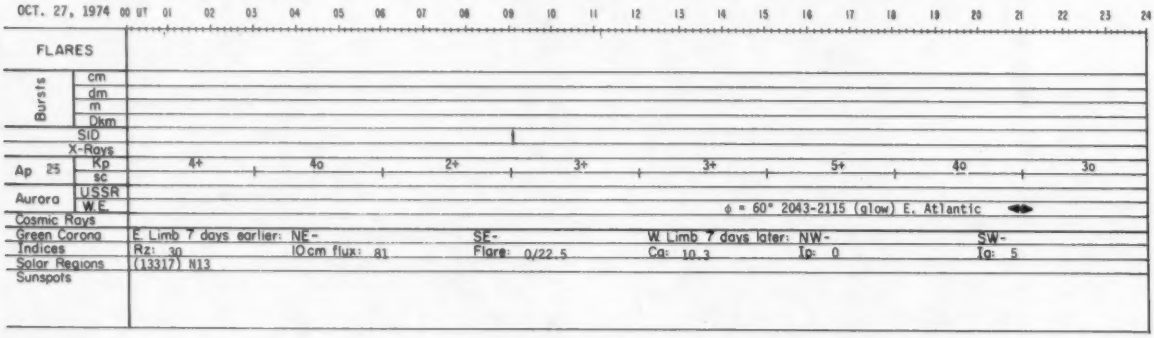
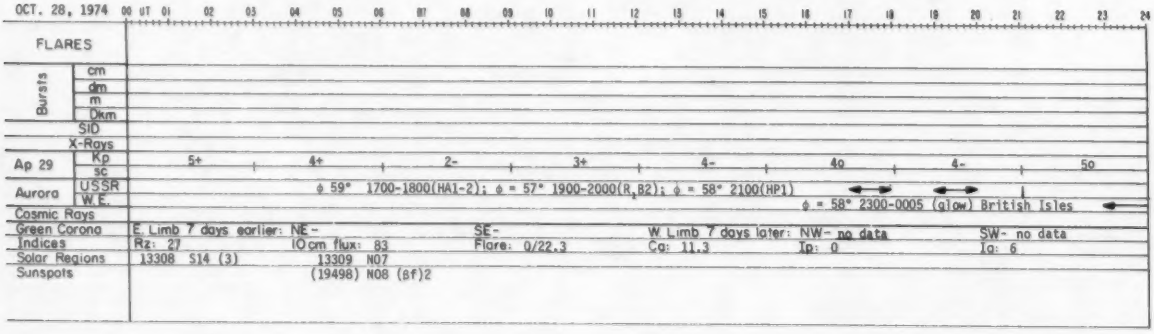
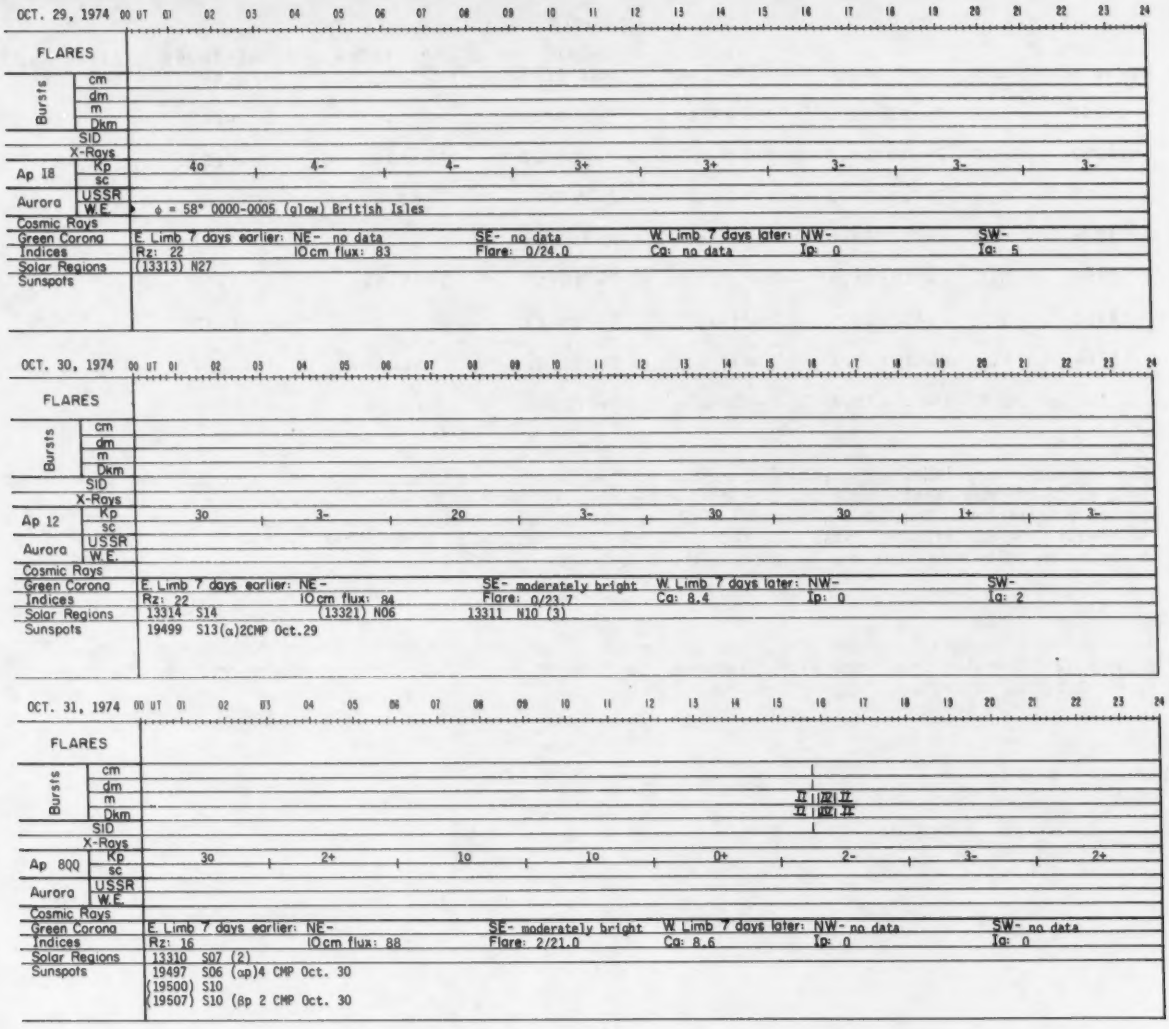
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 28 Kp 4o 4- 5o 4- 4o 4o 4+ 4-
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
φ = 57° 1200-1500(R2); φ = 56° 1500-2100(HP1)
E Limb 7 days earlier: NE- no data SE- no data W Limb 7 days later: NW- SW-
Rz: 16 10cm flux: 82 Flare: 0/23.9 Cg: 4.2 Ip: 0 Ig: 5
13312 N32 (13320) N47 (13316) S16


OCT. 27, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 25 Kp 4+ 4o 2+ 3+ 3+ 5+ 4o 3o
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
φ = 60° 2043-2115 (glow) E. Atlantic
E Limb 7 days earlier: NE- SE- W Limb 7 days later: NW- SW-
Rz: 30 10cm flux: 81 Flare: 0/22.5 Cg: 10.3 Ip: 0 Ig: 5
(13317) N13


OCT. 28, 1974
00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 29 Kp 5+ 4+ 2- 3+ 4- 4o 4- 5o
sc
Aurora USSR
W.E.
Cosmic Rays
Green Corona
Indices
Solar Regions
Sunspots
φ 59° 1700-1800(HA1-2); φ = 57° 1900-2000(R2,82); φ = 58° 2100(HP1)
φ = 58° 2300-0005 (glow) British Isles
E Limb 7 days earlier: NE- SE- W Limb 7 days later: NW- no data SW- no data
Rz: 27 10cm flux: 83 Flare: 0/22.3 Cg: 11.3 Ip: 0 Ig: 6
13308 S14 (3) 13309 N07
(19498) N08 (Bf)2


OCT. 29, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 18 Kp 4o 4- 4- 3+ 3+ 3- 3- 3-
sc
Aurora USSR W.E. ϕ = 58° 0000-0005 (glow) British Isles
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- no data SE- no data W Limb 7 days later: NW- SW-
Indices Rz: 22 10cm flux: 83 Flare: 0/24.0 Ca: no data Ip: 0 Ig: 5
Solar Regions (13313) N27
Sunspots
OCT. 30, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 12 Kp 3o 3- 2o 3- 3o 3o 1+ 3-
sc
Aurora USSR W.E.
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- moderately bright W Limb 7 days later: NW- SW-
Indices Rz: 22 10cm flux: 84 Flare: 0/23.7 Ca: 8.4 Ip: 0 Ig: 2
Solar Regions 13314 S14 (13321) N06 13311 N10 (3)
Sunspots 19499 S13(α)2CMP Oct.29
OCT. 31, 1974 00 UT 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
FLARES
Bursts cm dm m Dkm
SID
X-Rays
Ap 8QQ Kp 3o 2+ 1o 1o 0+ 2- 3- 2+
sc
Aurora USSR W.E.
Cosmic Rays
Green Corona E. Limb 7 days earlier: NE- SE- moderately bright W Limb 7 days later: NW- no data SW- no data
Indices Rz: 16 10cm flux: 88 Flare: 2/21.0 Ca: 8.6 Ip: 0 Ig: 0
Solar Regions 13310 S07 (2)
Sunspots 19497 S06 (αp)4 CMP Oct. 30
(19500) S10
(19507) S10 (βp 2 CMP Oct. 30

REGIONAL FLARE INDEX

OCTOBER 1974

MC MATH PLAGE NO.	LAT	CMP DATE	DATE FIRST FLARE	DATE LAST FLARE	FLARE-INDEX SUM	FLARE-INDEX MEAN	TOTAL NO. OF FLARES
13257	S12	74/10/01.5	74/09/29	74/09/29	4.82	4.82	1
13262	N10	74/10/03.9	74/10/03	74/10/03	40.83	40.83	1
13263	S 6	74/10/04.1	74/09/29	74/10/05	51.41	7.34	8
13279	N 7	74/10/09.9	74/10/05	74/10/10	18.46	3.08	3
13280	N10	74/10/11.5	74/10/05	74/10/18	1065.64	76.12	51
13302	S12	74/10/18.1	74/10/23	74/10/23	1.87	1.87	1
13314	S14	74/10/30.1	74/11/01	74/11/01	31.94	31.94	1
13310	S 7	74/10/31.0	74/11/05	74/11/06	19.41	9.70	6

Note:
The Regional Flare Index and count of flares in each region has in previous months included each maximum of a multi-maximum event. This has caused some regions to appear to be more flare producing than is probably warranted. Beginning with April 1972 only the principal maximum of a multi-maximum event will be used in the calculation. Also note that only the Confirmed Events as selected for the "I.A.U. Quarterly Bulletin on Solar Activity" are included in the calculation.

Because of differences in method of calculation, the dates of Central Meridian Passage for the McMath Plage Regions vary somewhat from those given elsewhere. Any region not listed here produced no confirmed flares during its disk passage.

MISCELLANEOUS DATA

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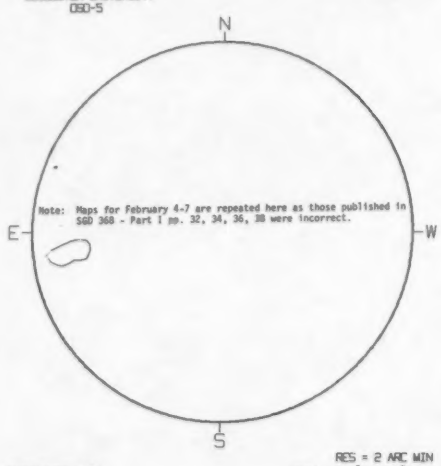
X-ray Spectroheliograms
OSO-5 -- February 1975 36-37

04 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



Note: Maps for February 4-7 are repeated here as those published in SGD 368 - Part I pp. 32, 34, 36, 38 were incorrect.

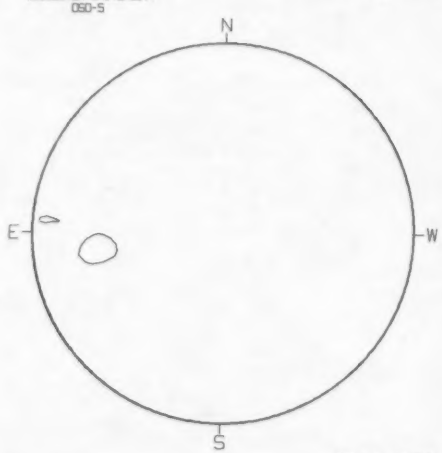
0129-0229 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

05 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



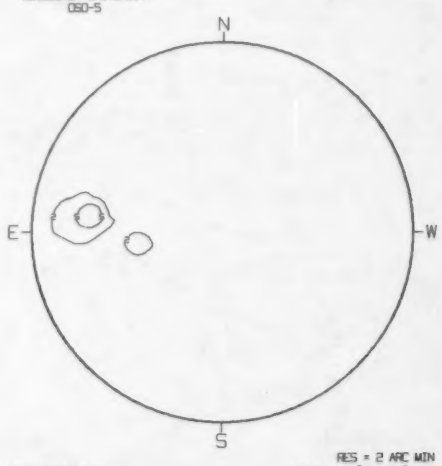
0253-0354 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

06 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



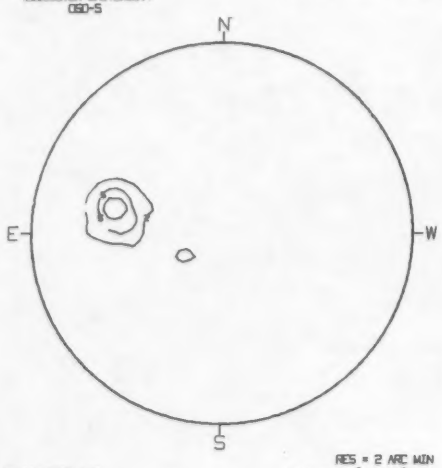
0246-0349 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

07 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



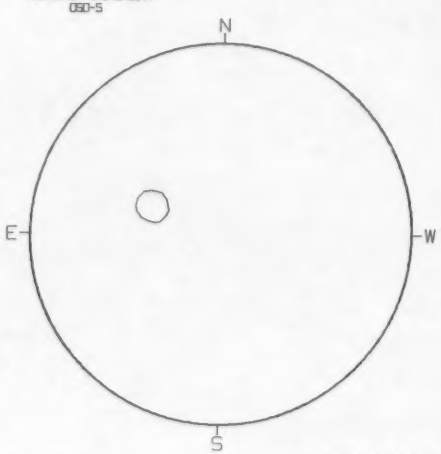
0229-0331 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

08 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



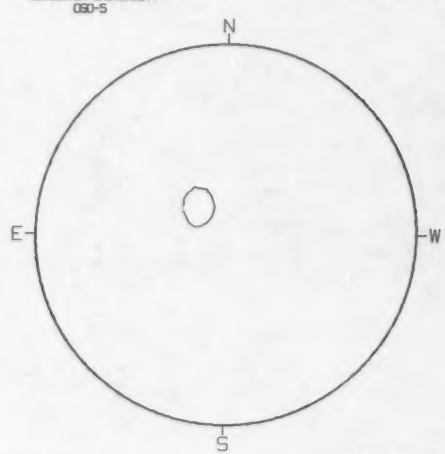
0223- UOO UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

09 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



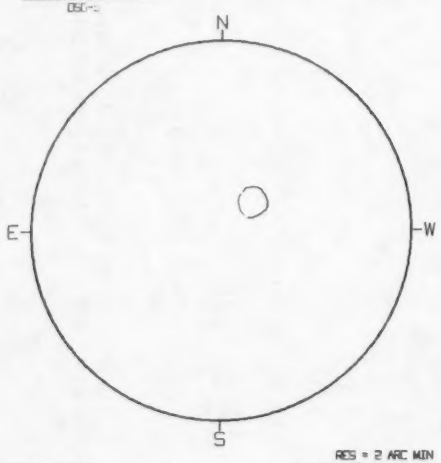
0210-0348 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

10 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·5-11·1Å X-RAYS



0833-0918 UT

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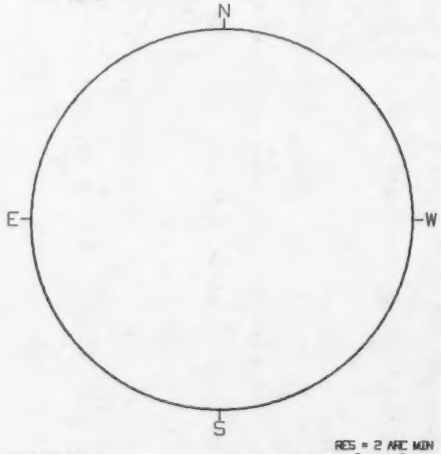
UNIT = 10^{-6}ERG/CM^2/SEC

11 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



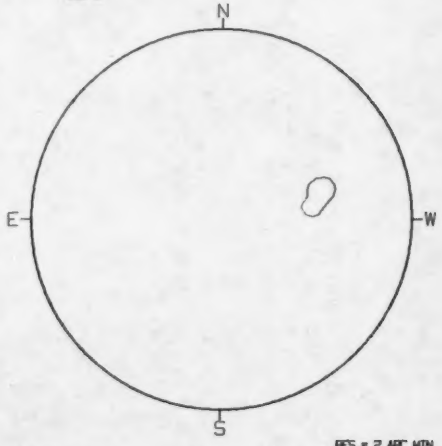
0142-0245 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

12 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



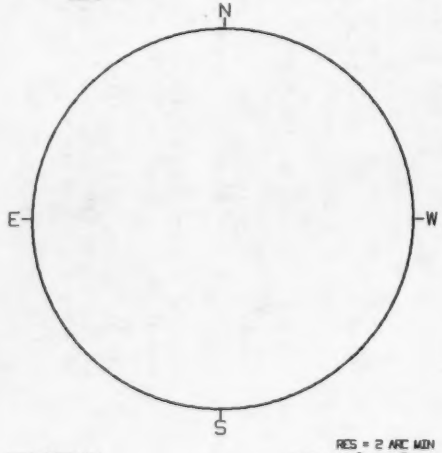
0129-0241 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

13 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



0230-0338 UT

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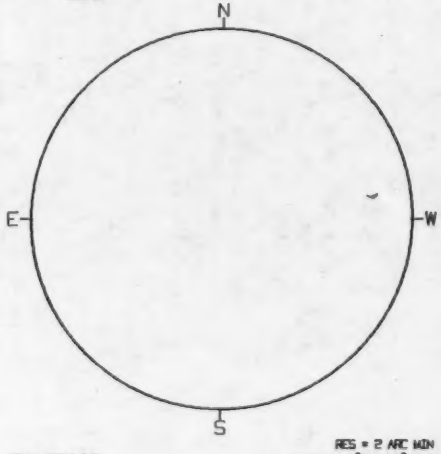
UNIT = 10^{-6}ERG/CM^2/SEC

14 FEBRUARY 1975

UNIVERSITY COLLEGE LONDON
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



0218-0316 UT

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15 FEBRUARY 1975

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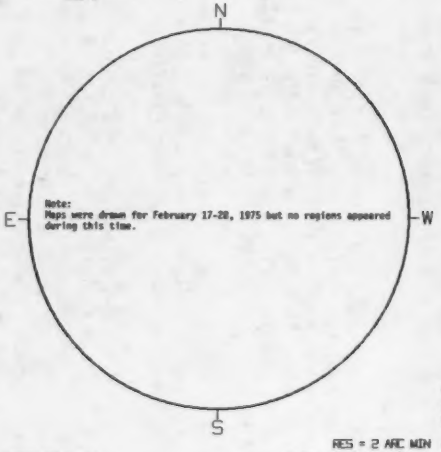
LEICESTER UNIVERSITY
OSO-5

9·6-11·1Å X-RAYS



0213-0341 UT

RES = 2 ARC MIN
UNIT = 10^{-6}ERG/CM^2/SEC

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UAG-33 "Auroral Electrojet Magnetic Activity Indices AE(10) for 1967", by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Environmental Data Service, May 1974, 142 pages, price 75 cents.

UAG-34 "Absorption Data for the IGY/IGC and IQSY", compiled and edited by A. H. Shapley, National Geophysical and Solar-Terrestrial Data Center, NOAA, Boulder, Colorado, U.S.A., W. R. Piggott, Science Research Council, Slough, U.K., and K. Rawer, Arbeitsgruppe für Physikalische Weltraumforschung, Freiburg, G.F.R., June 1974, 381 pages, price $2.00.

UAG-35 "Catalogue of Digital Geomagnetic Variation Data at World Data Center A for Solar-Terrestrial Physics", prepared by Environmental Data Service, NOAA, Boulder, Colorado, July 1974, 20 pages, price 20 cents.

UAG-36 "An Atlas of Extreme Ultraviolet Flashes of Solar Flares Observed Via Sudden Frequency Deviations During the ATM-SKYLAB Missions", by R. F. Donnelly and E. L. Berger, NOAA Space Environment Laboratory, Lt. J. D. Busman, NOAA Commissioned Corps, B. Henson, NASA Marshall Space Flight Center, T. B. Jones, University of Leicester, UK, G. M. Lerfald, NOAA Wave Propagation Laboratory, K. Najita, University of Hawaii, W. M. Retallack, NOAA Space Environment Laboratory, and W. J. Wagner, Sacramento Peak Observatory, October 1974, 95 pages, price 55 cents.

UAG-37 "Auroral Electrojet Magnetic Activity Indices AE(10) for 1966", by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Environmental Data Service, December 1974, 142 pages, price 75 cents.

UAG-38 "Master Station List for Solar-Terrestrial Physics Data at WDC-A for Solar-Terrestrial Physics", by R. W. Buhmann, World Data Center A for Solar-Terrestrial Physics, Juan D. Roederer, University of Denver, Denver, Colorado, M. A. Shea and D. F. Smart, A.F.C.R.L., Hanscom AFB, Massachusetts, December 1974, 110 pages, price $1.60.

UAG-39 "Auroral Electrojet Magnetic Activity Indices AE(11) for 1971", by Joe Haskell Allen, Carl C. Abston and Leslie D. Morris, National Geophysical and Solar-Terrestrial Data Center, Environmental Data Service, February 1975, 144 pages, price $2.05.

UAG-40 "H-Alpha Synoptic Charts of Solar Activity For the Period of Skylab Observations, May, 1973-March, 1974", by Patrick S. McIntosh, NOAA Environmental Research Laboratory, February 1975, 32 pages, price 56 cents.

UAG-41 "H-Alpha Synoptic Charts of Solar Activity During the First Year of Solar Cycle 20 October, 1964 - August, 1965", by Patrick S. McIntosh, NOAA Environmental Research Laboratory, and Jerome T. Nolte, American Science and Engineering, Cambridge, Massachusetts, March 1975, 25 pages, price 48 cents.

UAG-42 "Observations of Jupiter's Sporadic Radio Emission in the Range 7.6-80 MHz 10 December 1971 through 21 March 1975", by James W. Warwick, George A. Dulk, and Anthony C. Riddle, Department of Astro-Geophysics, University of Colorado, Boulder, Colorado 80302, April 1975, 49 pages, price $1.15.

UAG-43 "Catalog of Observation Times of Ground-Based Skylab-Coordinated Solar Observing Programs", compiled by Helen E. Coffey, World Data Center A for Solar-Terrestrial Physics, May 1975, 159 pages.

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